

Supplementary material for

Regional variation of the CD4 and CD8 T cell epitopes conserved in circulating dengue viruses and shared with potential vaccine candidates.

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Supplementary Table S1. Details of the individual CD4 and CD8 T cell epitopes published in the literature. Detailed information for individual experimentally characterized dengue specific CD4 T cell epitopes and CD8 T cell epitopes that are retrieved from literature. Epitopes are organized into eight categories: DENV-1 specific CD4 epitopes, DENV-2 specific CD4 epitopes, DENV-3 specific CD4 epitopes, DENV-4 specific CD4 epitopes, DENV-1 specific CD8 epitopes, DENV-2 specific CD8 epitopes, DENV-3 specific CD8 epitopes, DENV-4 specific CD8 epitopes. For each epitope, individual columns represent sequence ID, sequence, dengue protein to which the epitope belongs to, start and end amino acid positions of the epitope sequence in the dengue polyprotein, HLA restriction, and functional assays such as IFN- γ Enzyme Linked ImmunoSpot assay (ELISPOT), intracellular IFN- γ cytokine staining assay (ICC) or MHC tetramer assays used to characterize the epitopes.

CD4 DENV-1 Epitopes

Epitope_ID	AminoAcid_Seq	Protein_Name	Start	End	Allele	Serotype	Method/Technique	Assay Group	Qualitative Measure
1067569	LARWGSFKKNGAIKV	C	66	80	HLA-DRB1*07:01	Dengue virus 1	ELISPOT	IFNg release	Positive-Low
195113	AFILRFLAIPPTAGIL	C	30	44	HLA-DRB1*01:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195117	AGILARWSSFKKNGA	C	51	65	HLA-DRB1*15:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195246	EISNMLNIMNRRKRT	C	87	101	HLA-DRB1*13:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195299	FIAFILRFLAIPPTAG	C	28	42	HLA-DRB1*01:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195314	FNMLKRARNRVSTGS	C	1	15	HLA-DRB1*08:02	Dengue virus 1	ELISPOT	IFNg release	Positive
195315	FNMLKRARNRVSTVS	C	13	27	HLA-DRB1*08:02	Dengue virus 1	ELISPOT	IFNg release	Positive
195468	IAFLRFLAIPPTAGI	C	29	43	HLA-DRB1*01:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195498	IKVLRGFKKEISNML	C	78	92	HLA-DRB1*04:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195535	ISSMLNIMNRRKRSV	C	88	102	HLA-DRB1*08:02	Dengue virus 1	ELISPOT	IFNg release	Positive
195540	ISSMLNIMNRRKRSV	C	76	90	HLA-DRB1*14:02	Dengue virus 1	ELISPOT	IFNg release	Positive
195557	KEISNMLNIMNRRKR	C	86	100	HLA-DRB1*13:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195560	KEVSNMLNIMNRRKR	C	86	100	HLA-DRB1*13:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195586	KRSVTMLMLPTAL	C	87	101	HLA-DRB1*01:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195681	LMLLPTALFAHLTTR	C	94	108	HLA-DRB1*04:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195761	MLNIMNRRKRSVTML	C	69	83	HLA-DRB1*08:02	Dengue virus 1	ELISPOT	IFNg release	Positive
195805	NMLNIMNRRKRSVTM	C	90	104	HLA-DRB1*11:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195883	RGFKKEISNMLNIMN	C	82	96	HLA-DRB1*04:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195884	RGFKKEISNMLSIMN	C	82	96	HLA-DRB1*04:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195885	RGFKKEISSMLNIMN	C	60	74	HLA-DRB1*04:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195904	RPSFNMLKRARNRV	C	10	24	HLA-DRB1*11:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195944	SFNMLKRARNRVSTG	C	12	26	HLA-DRB1*11:01	Dengue virus 1	ELISPOT	IFNg release	Positive
196043	TGRPSFNMLKRARNR	C	8	22	HLA-DRB1*11:01	Dengue virus 1	ELISPOT	IFNg release	Positive
196146	VLRGFKKEISNMLNI	C	80	94	HLA-DRB1*04:01	Dengue virus 1	ELISPOT	IFNg release	Positive
196151	VMAFIARFLAIP	C	25	39	HLA-DRB1*11:01	Dengue virus 1	ELISPOT	IFNg release	Positive
196188	VSVLFMLLPTALAFH	C	102	116	HLA-DRB1*01:01	Dengue virus 1	ELISPOT	IFNg release	Positive
196195	VTMLFMLLPTALAFH	C	102	116	HLA-DRB1*04:01	Dengue virus 1	ELISPOT	IFNg release	Positive
196196	VTMLLMLLPTALAFH	C	90	104	HLA-DRB1*04:01	Dengue virus 1	ELISPOT	IFNg release	Positive
39096	LRGFKKEISNML	C	81	92	HLA-DPw4	Dengue virus 1	ICS	TNF release	Positive
539043	AFIAFLRFLAIPPTA	C	27	41	HLA-DRB1*12:02	Dengue virus 1	ELISPOT	IFNg release	Positive
539048	AFMAFLRFLAIPPTA	C	27	41	HLA-DRB1*15:02	Dengue virus 1	ELISPOT	IFNg release	Positive
539257	FKKEISNMLNIMNRR	C	84	98	HLA-DRB1*04:03	Dengue virus 1	ELISPOT	IFNg release	Positive
539258	FKKEISSMLNIMNRR	C	62	76	HLA-DRB1*10:01	Dengue virus 1	ELISPOT	IFNg release	Positive
539259	FKKNGAIKVLRGFKK	C	50	64	HLA-DRB1*08:03	Dengue virus 1	ELISPOT	IFNg release	Positive
539278	GAIKVLRGFKKEISN	C	76	90	HLA-DRB1*12:02	Dengue virus 1	ELISPOT	IFNg release	Positive
539459	KEISSMLNIMNRRKR	C	64	78	HLA-DRB1*14:04	Dengue virus 1	ELISPOT	IFNg release	Positive
539475	KKEISSMLNIMNRRKR	C	63	77	HLA-DRB1*14:04	Dengue virus 1	ELISPOT	IFNg release	Positive
539495	KNGAIKVLRGFKKEI	C	52	66	HLA-DRB1*12:02	Dengue virus 1	ELISPOT	IFNg release	Positive
539613	FLRFLAIPPTAGILAR	C	32	46	HLA-DRB1*04:03	Dengue virus 1	ELISPOT	IFNg release	Positive
539616	LRGFKKEISNMLNIM	C	81	95	HLA-DRB1*10:01	Dengue virus 1	ELISPOT	IFNg release	Positive
539617	LRGFKKEISSMLNIM	C	59	73	HLA-DRB1*13:01	Dengue virus 1	ELISPOT	IFNg release	Positive
539681	MLNIRNRRKRSVTML	C	91	105	HLA-DRB1*13:01	Dengue virus 1	ELISPOT	IFNg release	Positive
539711	NGAIKVLRGFKKEIS	C	53	67	HLA-DRB1*13:01	Dengue virus 1	ELISPOT	IFNg release	Positive
539780	PMKLVMAFIARFL	C	21	35	HLA-DRB1*13:01	Dengue virus 1	ELISPOT	IFNg release	Positive
539785	PSFNMLKRARNRVST	C	11	25	HLA-DRB1*10:01	Dengue virus 1	ELISPOT	IFNg release	Positive
539816	QPSFNMLKRARNRV	C	10	24	HLA-DRB1*08:03	Dengue virus 1	ELISPOT	IFNg release	Positive
539866	RPSFNMLKVRNRVS	C	10	24	HLA-DRB1*08:03	Dengue virus 1	ELISPOT	IFNg release	Positive
540059	VLRGFKKEISSMLNI	C	68	82	HLA-DRB1*04:07	Dengue virus 1	ELISPOT	IFNg release	Positive
540117	WGSFKKNGAIKVLRG	C	47	61	HLA-DRB1*09:01	Dengue virus 1	ELISPOT	IFNg release	Positive
738927	FLRFLAIPPTAGILA	C	41	55	HLA-DRB1*14:02	Dengue virus 1	ELISPOT	IFNg release	Positive
740331	SNMLNIMNRRKRSVT	C	89	103	HLA-DRB1*14:02	Dengue virus 1	ELISPOT	IFNg release	Positive
867523	KVLRGFKKEISNMLN	C	79	93	HLA-DRB3*02:02	Dengue virus 1	ELISPOT	IFNg release	Positive
95107	KLVMAFIARFL	C	45	57	HLA-DPw4	Dengue virus 1	ELISPOT	IFNg release	Positive
195368	GIIFILLMLVTPSMA	PreM	266	280	HLA-DRB1*01:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195562	KGIIFILLMLVTPSM	PreM	265	279	HLA-DRB1*08:02	Dengue virus 1	ELISPOT	IFNg release	Positive
195589	KSLLFKTSVGVNMCT	PreM	135	149	HLA-DRB1*07:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195831	PGFTVIALFLAHAIG	PreM	245	259	HLA-DRB1*15:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195887	RGKSLLFKTSAGVNM	PreM	111	125	HLA-DRB1*07:01	Dengue virus 1	ELISPOT	IFNg release	Positive
196085	TVIALFLAHAGTSI	PreM	248	262	HLA-DRB1*07:01	Dengue virus 1	ELISPOT	IFNg release	Positive
539516	KSLLFKTSAGVNMCT	PreM	123	137	HLA-DRB1*09:01	Dengue virus 1	ELISPOT	IFNg release	Positive
867083	HPGFTVIALFLAHAI	PreM	244	258	HLA-DPB1*02:01	Dengue virus 1	ELISPOT	IFNg release	Positive
867912	LRHPGFTVIALFLAH	PreM	242	256	HLA-DPB1*02:01	Dengue virus 1	ELISPOT	IFNg release	Positive
869062	SVGVNMCTLIAMDLG	PreM	142	156	HLA-DQA1*01:02/DQB1*06:02	Dengue virus 1	ELISPOT	IFNg release	Positive
195145	AKFKCVTKLEGKIVQ	E	117	131	HLA-DRB1*11:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195216	DIELLKTEVTNPAYL	E	37	51	HLA-DRB1*04:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195260	ENLKYSVIVTVHTGD	E	128	142	HLA-DRB1*07:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195359	GGFLTSVGKLIHQVF	E	706	720	HLA-DRB1*11:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195361	GGVFTSVGKLVHQIF	E	426	440	HLA-DRB1*11:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195362	GGVFTSVGKLVHQVF	E	426	440	HLA-DRB1*11:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195477	IELLKTEVTNPAYLR	E	38	52	HLA-DRB1*04:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195484	IGGLFTSVGKLIHQV	E	705	719	HLA-DRB1*07:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195547	IVQYENLKYSVIVTV	E	124	138	HLA-DRB1*15:02	Dengue virus 1	ELISPOT	IFNg release	Positive
195623	LDIELLKTEVTNPAY	E	36	50	HLA-DRB1*04:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195646	LITANPIVTDKEKPV	E	346	360	HLA-DRB1*03:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195814	NRQDLLVTFKTAHAK	E	227	241	HLA-DRB1*04:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195874	QYENLKYSVIVTVHT	E	126	140	HLA-DRB1*07:01	Dengue virus 1	ELISPOT	IFNg release	Positive
196053	TLDIELLKTEVTNPA	E	35	49	HLA-DRB1*04:01	Dengue virus 1	ELISPOT	IFNg release	Positive
539169	DLLVTFKTAHAKQEQ	E	230	244	HLA-DRB1*14:04	Dengue virus 1	ELISPOT	IFNg release	Positive
539369	GVSWTMKIGIGILLT	E	445	459	HLA-DRB1*15:02	Dengue virus 1	ELISPOT	IFNg release	Positive
539378	HAKKQEVVVLGSQEGAMH	E	239	256	HLA class II	Dengue virus 1	ICS	IFNg release	Positive
539593	LLVTFKTAHAKKQEV	E	236	250	HLA-DRB1*14:02	Dengue virus 1	ELISPOT	IFNg release	Positive
539670	MKIGILLTWLGLN	E	450	464	HLA-DRB1*15:06	Dengue virus 1	ELISPOT	IFNg release	Positive
539800	QDLLVTFKTAHAKKQ	E	229	243	HLA-DRB1*09:01	Dengue virus 1	ELISPOT	IFNg release	Positive
539840	REDLLVTFKTAHAKK	E	513	527	HLA-DRB1*04:03	Dengue virus 1	ELISPOT	IFNg release	Positive
539854	RKDLLVTFKTAHAKK	E	513	527	HLA-DRB1*04:03	Dengue virus 1	ELISPOT	IFNg release	Positive
539869	RQDLLVTFKTAHAKK	E	228	242	HLA-DRB1*08:03	Dengue virus 1	ELISPOT	IFNg release	Positive

540052	VLGSGQEGAMHTALTGA	E	247	262	HLA class II	Dengue virus 1	ICS	IFNg release	Positive
540104	VVLGSGQEGAMHTALTG	E	245	261	HLA class II	Dengue virus 1	ICS	IFNg release	Positive
741745	MRCVGIGNRDFVEGLSGATW	E	281	300	HLA class II	Dengue virus 1	ELISPOT	IFNg release	Positive
867045	HAKKQDEAVLGSQEG	E	244	258	HLA-DQA1*03:01/DQB1*03:02	Dengue virus 1	ELISPOT	IFNg release	Positive
867101	HTALTGATEIQTSGT	E	541	555	HLA-DQA1*01:02/DQB1*06:02	Dengue virus 1	ELISPOT	IFNg release	Positive
867378	KCRLKMDKLT.LKGMS	E	564	578	HLA-DRB3*02:02	Dengue virus 1	ELISPOT	IFNg release	Positive
868013	LVHKQWFLDLP.PWT	E	487	501	HLA-DQA1*01:01/DQB1*05:01	Dengue virus 1	ELISPOT	IFNg release	Positive
869085	SYIVIGAGKKALKLS	E	376	390	HLA-DRB5*01:01	Dengue virus 1	ELISPOT	IFNg release	Positive
869690	WLAHKQWFLDLP.PW	E	206	220	HLA-DQA1*01:01/DQB1*05:01	Dengue virus 1	ELISPOT	IFNg release	Positive
869691	WLVHKQWFLDLP.PW	E	486	500	HLA-DQA1*01:01/DQB1*05:01	Dengue virus 1	ELISPOT	IFNg release	Positive
95154	SSIGKMFEATARG	E	396	408	HLA-DQ8	Dengue virus 1	ELISPOT	IFNg release	Positive
132583	QYKFQADSPKRLSAA	NS1	31	45	HLA-DRB1*03:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195579	KNETWK.LARASFIEV	NS1	206	220	HLA-DRB1*07:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195684	LNHILLENDIKFTVV	NS1	850	864	HLA-DRB1*03:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195685	LNHILLENDMKFTVV	NS1	75	89	HLA-DRB1*03:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195690	LNWILLENDMKFTVV	NS1	850	864	HLA-DRB1*03:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195784	NETWK.LARASFIEVK	NS1	207	221	HLA-DRB1*07:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195785	NETWK.LTRASFIEVK	NS1	982	996	HLA-DRB1*07:01	Dengue virus 1	ELISPOT	IFNg release	Positive
539401	IESEKNETWK.LARASFI	NS1	202	218	HLA class II	Dengue virus 1	ICS	IFNg release	Positive
591686	KFTVVVDVSGILAQ	NS1	860	874	HLA-DRB1*03:01	Dengue virus 1	ELISPOT	IFNg release	Positive
738503	ANGILAQGGK.MIRPQ	NS1	868	882	HLA-DRB1*14:06	Dengue virus 1	ELISPOT	IFNg release	Positive
740562	TWVGDDANGILAQQGK	NS1	862	876	HLA-DRB1*01:02	Dengue virus 1	ELISPOT	IFNg release	Positive
866284	DDQRAWNIWVEDYD	NS1	181	195	HLA-DQA1*01:01/DQB1*05:01	Dengue virus 1	ELISPOT	IFNg release	Positive
866693	FGIFTN.IWKL.RDS	NS1	196	210	HLA-DRB1*04:01	Dengue virus 1	ELISPOT	IFNg release	Positive
867041	HADMGYWIESEKNET	NS1	231	245	HLA-DQA1*01:01/DQB1*05:01	Dengue virus 1	ELISPOT	IFNg release	Positive
867405	KIIGADIQNTTFID	NS1	897	911	HLA-DRB1*04:02	Dengue virus 1	ELISPOT	IFNg release	Positive
868492	QISNEL.NYILLENDM	NS1	845	859	HLA-DRB1*01:01	Dengue virus 1	ELISPOT	IFNg release	Positive
868574	QRAWNIWVEDYDGG	NS1	183	197	HLA-DQA1*01:01/DQB1*05:01	Dengue virus 1	ELISPOT	IFNg release	Positive
868630	QYKFQADSPKRLSAA	NS1	806	820	HLA-DRB3*02:02	Dengue virus 1	ELISPOT	IFNg release	Positive
869135	TEQYKFQADSPKRLS	NS1	65	79	HLA-DRB5*01:01	Dengue virus 1	ELISPOT	IFNg release	Positive
869721	YGFGITN.IWKL.R	NS1	194	208	HLA-DRB1*02:01	Dengue virus 1	ELISPOT	IFNg release	Positive
167816	SLVASVELPNSLEELGDLAMGIMI	NS2a	109	133	HLA class II	Dengue virus 1	ELISPOT	IFNg release	Positive
195162	AMVLSIVSLFPLCLS	NS2a	1296	1310	HLA-DRB1*15:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195196	AWKTMAMALSIVSLF	NS2a	1291	1305	HLA-DRB1*08:02	Dengue virus 1	ELISPOT	IFNg release	Positive
195285	FAVGLLFRRLTSREI	NS2a	1214	1228	HLA-DRB1*11:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195286	FAVGLLFRRLTSREV	NS2a	1214	1228	HLA-DRB1*08:03	Dengue virus 1	ELISPOT	IFNg release	Positive
195323	FQSHQLWATLLSLTF	NS2a	1267	1281	HLA-DRB1*04:02	Dengue virus 1	ELISPOT	IFNg release	Positive
195389	GLLFRRLTSREVL	NS2a	1217	1231	HLA-DRB1*11:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195390	GLLFRRLTSREILL	NS2a	1217	1231	HLA-DRB1*07:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195391	GLLFRRLTSREVL	NS2a	1217	1231	HLA-DRB1*08:03	Dengue virus 1	ELISPOT	IFNg release	Positive
195392	GLLFRRLTSREVP	NS2a	1217	1231	HLA-DRB1*10:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195422	GT.LAVFLLIMGQLT	NS2a	1162	1176	HLA-DRB1*01:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195423	GT.LVFFLLIMGQLT	NS2a	1162	1176	HLA-DRB1*15:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195595	KTMAMVLSIVSLFPL	NS2a	1293	1307	HLA-DRB1*03:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195613	LAVFLLIMGQLTWN	NS2a	1164	1178	HLA-DRB1*15:06	Dengue virus 1	ELISPOT	IFNg release	Positive
195614	LAVGLLFRRLTSREV	NS2a	1214	1228	HLA-DRB1*11:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195665	LLTIGLSLVASVEL	NS2a	1229	1243	HLA-DRB1*07:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195670	LLSLTFIKT.TFSLHY	NS2a	1276	1290	HLA-DRB1*07:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195674	LLTIGLSLVASVELP	NS2a	1230	1244	HLA-DRB1*07:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195708	LSIVSLFPLCLSTTS	NS2a	1299	1313	HLA-DRB1*01:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195713	LSLTFIRTSLSLDYA	NS2a	1277	1291	HLA-DRB1*03:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195745	MAMVLSIVSLFPLCL	NS2a	1295	1309	HLA-DRB1*07:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195756	MGLLFRRLTSREVL	NS2a	1216	1230	HLA-DRB1*11:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195881	REVLLLTGVL.SL.VAC	NS2a	1226	1240	HLA-DRB1*07:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195959	SILIEV.MRSRWSRK	NS2a	1143	1157	HLA-DRB1*11:04	Dengue virus 1	ELISPOT	IFNg release	Positive
195983	SREVL.LTIGLSLVA	NS2a	1225	1239	HLA-DRB1*15:01	Dengue virus 1	ELISPOT	IFNg release	Positive
196216	WKT.MAMVLSIVSLFP	NS2a	1292	1306	HLA-DRB1*08:02	Dengue virus 1	ELISPOT	IFNg release	Positive
539086	AMGIM.LK.LL.TDFQS	NS2a	1255	1269	HLA-DRB1*04:03	Dengue virus 1	ELISPOT	IFNg release	Positive
539094	ATFKMRP.MFAVGLLF	NS2a	1206	1220	HLA-DRB1*01:02	Dengue virus 1	ELISPOT	IFNg release	Positive
539205	EEVMRSRWSRK.MLMT	NS2a	1147	1161	HLA-DRB1*13:01	Dengue virus 1	ELISPOT	IFNg release	Positive
539272	FSLHYAWKTMAMVLS	NS2a	1286	1300	HLA-DRB1*09:01	Dengue virus 1	ELISPOT	IFNg release	Positive
539398	IEEV.MRSRWSRK.ML	NS2a	1146	1160	HLA-DRB1*13:01	Dengue virus 1	ELISPOT	IFNg release	Positive
539517	KTFSLHYAWKTMAM	NS2a	1283	1297	HLA-DRB1*09:01	Dengue virus 1	ELISPOT	IFNg release	Positive
539624	LSLTFIKT.TLSLHYA	NS2a	1277	1291	HLA-DRB1*14:04	Dengue virus 1	ELISPOT	IFNg release	Positive
539625	LSLTFIKT.TYSLHYA	NS2a	1277	1291	HLA-DRB1*14:04	Dengue virus 1	ELISPOT	IFNg release	Positive
539626	LSLTFIRSTIPLVMA	NS2a	1275	1289	HLA-DRB1*14:04	Dengue virus 1	ELISPOT	IFNg release	Positive
539651	L.VFLLIMGQLTWS	NS2a	1164	1178	HLA-DRB1*15:06	Dengue virus 1	ELISPOT	IFNg release	Positive
539657	MALSIVSLFPLCLST	NS2a	1297	1311	HLA-DRB1*15:06	Dengue virus 1	ELISPOT	IFNg release	Positive
539679	MLMTGT.LAVFLLIM	NS2a	1158	1172	HLA-DRB1*15:06	Dengue virus 1	ELISPOT	IFNg release	Positive
539680	MLMTGT.LVVFLLIM	NS2a	1158	1172	HLA-DRB1*15:06	Dengue virus 1	ELISPOT	IFNg release	Positive
539888	RWSRK.ML.MTGTLAVF	NS2a	1153	1167	HLA-DRB1*04:03	Dengue virus 1	ELISPOT	IFNg release	Positive
539912	SLDYAWKTMAMALS	NS2a	1287	1301	HLA-DRB1*09:01	Dengue virus 1	ELISPOT	IFNg release	Positive
539913	SLHYAWKTMAMVLSI	NS2a	1287	1301	HLA-DRB1*09:01	Dengue virus 1	ELISPOT	IFNg release	Positive
539918	SLTFIKT.TLSLHAW	NS2a	1278	1292	HLA-DRB1*14:04	Dengue virus 1	ELISPOT	IFNg release	Positive
539970	TFSLHYAWKTMAMVL	NS2a	1285	1299	HLA-DRB1*14:06	Dengue virus 1	ELISPOT	IFNg release	Positive
539974	TGTL.VV.FLL.LT.GQL	NS2a	1161	1175	HLA-DRB1*15:06	Dengue virus 1	ELISPOT	IFNg release	Positive
540006	TT.LSLT.FIRTSLSL	NS2a	1274	1288	HLA-DRB1*12:02	Dengue virus 1	ELISPOT	IFNg release	Positive
540038	VGLLFRRLTSREVL	NS2a	1216	1230	HLA-DRB1*08:03	Dengue virus 1	ELISPOT	IFNg release	Positive
540155	YLALMATFKMRP.MFA	NS2a	1201	1215	HLA-DRB1*13:01	Dengue virus 1	ELISPOT	IFNg release	Positive
591779	TLAVF.LLLT.MGQLT	NS2a	36	50	HLA-DRB1*11:01	Dengue virus 1	ELISPOT	IFNg release	Positive
738553	AVGLLFRRLTSREVL	NS2a	1215	1229	HLA-DRB1*01:02	Dengue virus 1	ELISPOT	IFNg release	Positive
738679	DLIRLCIMVGANASD	NS2a	1179	1193	HLA-DRB1*11:04	Dengue virus 1	ELISPOT	IFNg release	Positive
739424	LAVFLL.VMGQLTWN	NS2a	1164	1178	HLA-DRB1*11:04	Dengue virus 1	ELISPOT	IFNg release	Positive
739508	LLCISIMIEV.MRSR	NS2a	1139	1153	HLA-DRB1*11:04	Dengue virus 1	ELISPOT	IFNg release	Positive
739578	LSLTFIKT.TLSLHHA	NS2a	1277	1291	HLA-DRB1*04:07	Dengue virus 1	ELISPOT	IFNg release	Positive
866118	AMALSIVSLFPLCLS	NS2a	1296	1310	HLA-DRB1*04:01	Dengue virus 1	ELISPOT	IFNg release	Positive
866767	FQSYQLWATLLSLTF	NS2a	1267	1281	HLA-DRB1*04:02	Dengue virus 1	ELISPOT	IFNg release	Positive
866873	GILAVFLLIMGQLT	NS2a	1162	1176	HLA-DRB1*04:02	Dengue virus 1	ELISPOT	IFNg release	Positive
867232	ILK.LL.TDF.QSHQLWA	NS2a	1260	1274	HLA-DRB1*01:01	Dengue virus 1	ELISPOT	IFNg release	Positive
867997	LTSREILL.TVGLSL	NS2a	1223	1237	HLA-DRB1*04:02	Dengue virus 1	ELISPOT	IFNg release	Positive

868098	MGMGTTYLALMATFK	NS2a	456	470	HLA-DRB5*01:01	Dengue virus 1	ELISPOT	IFNg release	Positive
868100	MGQLTWNDLIRLCIM	NS2a	433	447	HLA-DPB1*04:02	Dengue virus 1	ELISPOT	IFNg release	Positive
868553	QPHQLWATLLSLTFV	NS2a	1268	1282	HLA-DPB1*04:02	Dengue virus 1	ELISPOT	IFNg release	Positive
869103	TDFQPHQLWTTLLSL	NS2a	1265	1279	HLA-DPB1*04:02	Dengue virus 1	ELISPOT	IFNg release	Positive
195191	AVGIVSILLSLLKN	NS2b	1355	1369	HLA-DRB1*08:02	Dengue virus 1	ELISPOT	IFNg release	Positive
195228	DTLTLLKATLLAVS	NS2b	1438	1452	HLA-DRB1*08:02	Dengue virus 1	ELISPOT	IFNg release	Positive
195508	ILVEVQDDGTMKID	NS2b	68	82	HLA-DRB1*03:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195510	IMAVGIVSILLSLL	NS2b	1353	1367	HLA-DRB1*07:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195715	LSLLKNDVPLAGPL	NS2b	1363	1377	HLA-DRB1*03:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195724	LTILLKATLLAVSGV	NS2b	1440	1454	HLA-DRB1*08:02	Dengue virus 1	ELISPOT	IFNg release	Positive
195878	RDDTLTLLKATLLA	NS2b	1436	1450	HLA-DRB1*12:02	Dengue virus 1	ELISPOT	IFNg release	Positive
195993	SSLLKNDVPLAGPLI	NS2b	1364	1378	HLA-DRB1*03:01	Dengue virus 1	ELISPOT	IFNg release	Positive
196111	VEVQDDGTMKIDEE	NS2b	1421	1435	HLA-DRB1*03:01	Dengue virus 1	ELISPOT	IFNg release	Positive
866200	ATFLVWYFWQKKQR	NS2b	1461	1475	HLA-DPB1*01:01	Dengue virus 1	ELISPOT	IFNg release	Positive
866201	ATLVVWYFWQKKQR	NS2b	1461	1475	HLA-DPB1*01:01	Dengue virus 1	ELISPOT	IFNg release	Positive
867359	IVSILLSLLKNDVP	NS2b	1358	1372	HLA-DPB1*04:02	Dengue virus 1	ELISPOT	IFNg release	Positive
867544	LAPLIAGGMILIACY	NS2b	1373	1387	HLA-DQA1*01:02/DQB1*06:02	Dengue virus 1	ELISPOT	IFNg release	Positive
1392180	GKEIVDLMCHATFTM	NS3	1730	1744	HLA class II	Dengue virus 1	biological activity	activation	Positive
167826	TSGYVSAIAQAKASQE	NS3	157	173	HLA class II	Dengue virus 1	ELISPOT	IFNg release	Positive
195143	AIVREAIKKRLRTL	NS3	1682	1696	HLA-DRB1*11:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195163	ANCLRNKNGKRVQLS	NS3	1848	1862	HLA-DRB1*13:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195165	ANFRADRVDPRLCL	NS3	1891	1905	HLA-DRB1*03:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195201	CHATFTMRLLSPPRV	NS3	1737	1751	HLA-DRB1*01:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195242	EKGIVGLYNGVVT	NS3	1618	1632	HLA-DRB1*15:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195296	FHTMWHVTRGAVLMY	NS3	1521	1535	HLA-DRB1*07:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195338	FTMRLLSPPRVPNYN	NS3	1741	1755	HLA-DRB1*01:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195377	GIYRILQRGLGRSQ	NS3	1496	1510	HLA-DRB1*11:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195379	GKIVGLYNGVVTSS	NS3	1619	1633	HLA-DRB1*15:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195549	IYRILQRGLGRSQV	NS3	1497	1511	HLA-DRB1*15:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195585	KRKLRTLILAPTRVV	NS3	1689	1703	HLA-DRB1*10:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195622	LDDGIYRIMQRGLLG	NS3	1493	1507	HLA-DRB1*11:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195705	RTLILAPTRVVASE	NS3	1692	1706	HLA-DRB1*08:02	Dengue virus 1	ELISPOT	IFNg release	Positive
195777	NCLRNKNGKRVQLSR	NS3	1849	1863	HLA-DRB1*11:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195778	NDIANCLRNKNGKRV	NS3	1845	1859	HLA-DRB1*11:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195896	KRLRTLILAPTRVVA	NS3	1690	1704	HLA-DRB1*01:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195914	RTLILAPTRVVASEM	NS3	1693	1707	HLA-DRB1*10:01	Dengue virus 1	ELISPOT	IFNg release	Positive
196130	VILKDGPERVILAGP	NS3	1908	1922	HLA-DRB1*03:01	Dengue virus 1	ELISPOT	IFNg release	Positive
196138	VLDDGIYRILQRGLL	NS3	1492	1506	HLA-DRB1*11:01	Dengue virus 1	ELISPOT	IFNg release	Positive
196197	VTRGAVLMYQGRLE	NS3	1527	1541	HLA-DRB1*15:01	Dengue virus 1	ELISPOT	IFNg release	Positive
24915	HGTKEIVDLMCHATE	NS3	251	265	HLA-DPw2	Dengue virus 1	ICS	IFNg release	Positive
30397	KEGERKKLRPRWLDA	NS3	585	599	HLA class II	Dengue virus 1	ICS	IFNg release	Positive
45669	NREGKIVGLYNGGVV	NS3	141	155	HLA-DRB1*15:01	Dengue virus 1	ICS	IFNg release	Positive
49768	PTRVVASEMAEALKG	NS3	224	238	HLA-DRB1*15:01	Dengue virus 1	ICS	TNF release	Positive
539022	AAAFMTATPPGSVE	NS3	1785	1799	HLA-DRB1*04:03	Dengue virus 1	ELISPOT	IFNg release	Positive
539027	AAIFMTATPPGSVEA	NS3	1786	1800	HLA-DRB1*10:01	Dengue virus 1	ELISPOT	IFNg release	Positive
539155	DGIYRILQRGLLGRS	NS3	1495	1509	HLA-DRB1*12:02	Dengue virus 1	ELISPOT	IFNg release	Positive
539156	DGIYRIMQRGLLGRS	NS3	1495	1509	HLA-DRB1*12:02	Dengue virus 1	ELISPOT	IFNg release	Positive
539171	DLMCHATFTMRLLS	NS3	1734	1748	HLA-DRB1*13:01	Dengue virus 1	ELISPOT	IFNg release	Positive
539288	GEAAAFMTATPPGS	NS3	1783	1797	HLA-DRB1*04:03	Dengue virus 1	ELISPOT	IFNg release	Positive
539309	GIYRIMQRGLLGRSQ	NS3	1496	1510	HLA-DRB1*14:04	Dengue virus 1	ELISPOT	IFNg release	Positive
539485	KLRTLILAPTRVVAS	NS3	1691	1705	HLA-DRB1*04:03	Dengue virus 1	ELISPOT	IFNg release	Positive
539543	LDDGIYRILQRGLLG	NS3	1493	1507	HLA-DRB1*12:02	Dengue virus 1	ELISPOT	IFNg release	Positive
539579	LKGMPIRYQTAVKS	NS3	1711	1725	HLA-DRB1*04:03	Dengue virus 1	ELISPOT	IFNg release	Positive
539715	NGKRVILSRKTFDT	NS3	1854	1868	HLA-DRB1*12:02	Dengue virus 1	ELISPOT	IFNg release	Positive
539839	REAIKKRLRTLILAP	NS3	1685	1699	HLA-DRB1*14:04	Dengue virus 1	ELISPOT	IFNg release	Positive
539902	SGTYVSAIAQAKASQ	NS3	1633	1647	HLA-DRB1*10:01	Dengue virus 1	ELISPOT	IFNg release	Positive
539986	TLILAPTRVVASEMA	NS3	1694	1708	HLA-DRB1*13:01	Dengue virus 1	ELISPOT	IFNg release	Positive
539993	TNCLRNKNGKRVQLS	NS3	1848	1862	HLA-DRB1*13:01	Dengue virus 1	ELISPOT	IFNg release	Positive
540040	VGLYNGGVVTTSGTY	NS3	1622	1636	HLA-DRB1*15:06	Dengue virus 1	ELISPOT	IFNg release	Positive
540071	VREAIKKRLTLILA	NS3	1684	1698	HLA-DRB1*12:02	Dengue virus 1	ELISPOT	IFNg release	Positive
540074	VREAIKKRLTLILA	NS3	1684	1698	HLA-DRB1*12:02	Dengue virus 1	ELISPOT	IFNg release	Positive
540075	VREAIKKRLTLVLA	NS3	1684	1698	HLA-DRB1*12:02	Dengue virus 1	ELISPOT	IFNg release	Positive
54391	RKLTIMDLHPGSGTK	NS3	1662	1676	HLA class II	Dengue virus 1	ICS	IFNg release	Positive
738417	AAAFMTATPPGSAAE	NS3	1785	1799	HLA-DRB1*04:07	Dengue virus 1	ELISPOT	IFNg release	Positive
738418	AAAFMTATPPGSME	NS3	1785	1799	HLA-DRB1*04:07	Dengue virus 1	ELISPOT	IFNg release	Positive
739269	IVGLYNGGVVTTSGT	NS3	132	146	HLA-DRB1*01:02	Dengue virus 1	ELISPOT	IFNg release	Positive
739540	LPAIVREAIKKRLRT	NS3	1680	1694	HLA-DRB1*14:02	Dengue virus 1	ELISPOT	IFNg release	Positive
866181	ASQEGPLPEIEDEVF	NS3	1645	1659	HLA-DQA1*05:01/DQB1*02:01	Dengue virus 1	ELISPOT	IFNg release	Positive
866469	EAIKKRLRTLILAPT	NS3	1686	1700	HLA-DPB1*01:01	Dengue virus 1	ELISPOT	IFNg release	Positive
866721	FKTPGEVGAJALDF	NS3	1591	1605	HLA-DQA1*03:01/DQB1*03:02	Dengue virus 1	ELISPOT	IFNg release	Positive
867025	GVFQENVFHTMWHVT	NS3	1514	1528	HLA-DPB1*04:01	Dengue virus 1	ELISPOT	IFNg release	Positive
867396	KGMPIRYQTAVKSE	NS3	1712	1726	HLA-DRB3*02:02	Dengue virus 1	ELISPOT	IFNg release	Positive
868113	MIIMDEAHFTDPASI	NS3	1756	1770	HLA-DQA1*01:01/DQB1*05:01	Dengue virus 1	ELISPOT	IFNg release	Positive
868343	PNYNMIMDEAHFTD	NS3	1752	1766	HLA-DQA1*05:01/DQB1*02:01	Dengue virus 1	ELISPOT	IFNg release	Positive
869341	TSSTGYVSAIAQAKA	NS3	1631	1645	HLA-DQA1*01:02/DQB1*06:02	Dengue virus 1	ELISPOT	IFNg release	Positive
869688	WHVTRGAVLMYQGRK	NS3	1525	1539	HLA-DQA1*01:02/DQB1*06:02	Dengue virus 1	ELISPOT	IFNg release	Positive
869696	WNTGEEVQVIAVEPG	NS3	1564	1578	HLA-DQA1*03:01/DQB1*03:02	Dengue virus 1	ELISPOT	IFNg release	Positive
95169	YRILQRGLGRSQ	NS3	23	35	HLA-DR1	Dengue virus 1	ELISPOT	IFNg release	Positive
195478	IETLMLLALIAVLGT	NS4a	2146	2160	HLA-DRB1*15:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195485	IGLLCVMASSALLWM	NS4a	2177	2191	HLA-DRB1*07:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195596	KTSIGLLCVTASSAL	NS4a	2174	2188	HLA-DRB1*07:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195679	LMLLALIAVLTTGGVT	NS4a	2149	2163	HLA-DRB1*08:02	Dengue virus 1	ELISPOT	IFNg release	Positive
195680	LMLLALTAVLTGGVT	NS4a	2149	2163	HLA-DRB1*01:01	Dengue virus 1	ELISPOT	IFNg release	Positive
196046	LTIELMLLALIAALT	NS4a	2145	2159	HLA-DRB1*01:01	Dengue virus 1	ELISPOT	IFNg release	Positive
196214	WIAASILEFFLMVL	NS4a	2198	2212	HLA-DRB1*15:01	Dengue virus 1	ELISPOT	IFNg release	Positive
196255	YVIGLLFMILTVA	NS4a	2230	2244	HLA-DRB1*11:01	Dengue virus 1	ELISPOT	IFNg release	Positive
539383	HLTLRAQNALDNLVM	NS4a	2110	2124	HLA-DRB3*02:02	Dengue virus 1	ELISPOT	IFNg release	Positive
539744	NQLAYVIGLLFMIL	NS4a	2226	2240	HLA-DRB1*15:02	Dengue virus 1	ELISPOT	IFNg release	Positive
738677	DLLEIGKLPHQLTL	NS4a	2099	2113	HLA-DRB1*11:04	Dengue virus 1	ELISPOT	IFNg release	Positive
739034	GLGKTSIGLLCVMAS	NS4a	2171	2185	HLA-DRB1*11:04	Dengue virus 1	ELISPOT	IFNg release	Positive

739085	GVTLFFSLGRGLGKT	NS4a	2161	2175	HLA-DRB1*01:02	Dengue virus 1	ELISPOT	IFNg release	Positive
867109	HWIAASILEFFLMV	NS4a	2197	2211	HLA-DRB1*04:01	Dengue virus 1	ELISPOT	IFNg release	Positive
867112	IAASILEFFLMVLL	NS4a	2199	2213	HLA-DQA1*01:01/DOB1*05:01	Dengue virus 1	ELISPOT	IFNg release	Positive
867567	LCVMASSALLVWMANV	NS4a	2180	2194	HLA-DQA1*01:02/DOB1*06:02	Dengue virus 1	ELISPOT	IFNg release	Positive
867760	LLCVMASSVLLWMAS	NS4a	2179	2193	HLA-DQA1*01:02/DOB1*06:02	Dengue virus 1	ELISPOT	IFNg release	Positive
868132	MLLALIAVLTTGGVTL	NS4a	2150	2164	HLA-DRB1*04:02	Dengue virus 1	ELISPOT	IFNg release	Positive
195114	AGAGLAFSLMKSLGG	NS4b	2476	2490	HLA-DRB1*04:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195193	AVLMLVAHYAIGPG	NS4b	2355	2369	HLA-DRB1*01:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195308	FMLVAHYAIGPGLQ	NS4b	2357	2371	HLA-DRB1*07:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195441	HATMLDVLDRPASAW	NS4b	2269	2283	HLA-DRB1*03:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195455	HHHATMLDVLDRPAS	NS4b	2267	2281	HLA-DRB1*03:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195476	IDLPVVDYDAKFEKQ	NS4b	2398	2412	HLA-DRB1*03:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195561	KFWNTTIAVSMANIF	NS4b	2456	2470	HLA-DRB1*07:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195620	LCTSQILLMRTTWAL	NS4b	2421	2435	HLA-DRB1*04:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195637	LQQLMLLILCTSQL	NS4b	2413	2427	HLA-DRB1*08:02	Dengue virus 1	ELISPOT	IFNg release	Positive
195682	LMMLVAHYAIGPGLQ	NS4b	2357	2371	HLA-DRB1*07:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195760	MLLILCTSQLLMRT	NS4b	2417	2431	HLA-DRB1*07:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195848	QIMLLILCTSQLLM	NS4b	2415	2429	HLA-DRB1*07:01	Dengue virus 1	ELISPOT	IFNg release	Positive
196143	VLMLVAHYAIGPGL	NS4b	2356	2370	HLA-DRB1*01:01	Dengue virus 1	ELISPOT	IFNg release	Positive
539322	GLAFSLMKSLGGRR	NS4b	2479	2493	HLA-DRB1*10:01	Dengue virus 1	ELISPOT	IFNg release	Positive
539725	NISLTAIANQAAILM	NS4b	2307	2321	HLA-DRB1*04:03	Dengue virus 1	ELISPOT	IFNg release	Positive
738560	AWTLYAVATTITPM	NS4b	2282	2296	HLA-DRB1*04:07	Dengue virus 1	ELISPOT	IFNg release	Positive
738686	DLRPASAWTLYAVAT	NS4b	2276	2290	HLA-DRB1*01:02	Dengue virus 1	ELISPOT	IFNg release	Positive
740732	WTLYAVATTITPMM	NS4b	2283	2297	HLA-DRB1*04:07	Dengue virus 1	ELISPOT	IFNg release	Positive
866002	AIANQAAILMGLDKG	NS4b	2312	2326	HLA-DQA1*01:02/DOB1*06:02	Dengue virus 1	ELISPOT	IFNg release	Positive
868336	PLTLTAAVLMLAAHY	NS4b	2349	2363	HLA-DQA1*01:02/DOB1*06:02	Dengue virus 1	ELISPOT	IFNg release	Positive
869401	VDGIVADLDPPVVD	NS4b	2392	2406	HLA-DQA1*01:01/DOB1*05:01	Dengue virus 1	ELISPOT	IFNg release	Positive
1066544	ACLGKSYAQMWQLMY	NS5	3244	3258	HLA-DRB1*04:01	Dengue virus 1	ELISPOT	IFNg release	Positive-Low
195147	AKNGTVMDSVISRRDQ	NS5	3076	3090	HLA-DRB1*03:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195150	AKWLWGLFSRNKKPR	NS5	2870	2884	HLA-DRB1*15:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195168	AQMWSQLMYFHRDLR	NS5	3251	3265	HLA-DRB1*13:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195186	ATNIQVAINQVRRL	NS5	3352	3366	HLA-DRB1*03:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195208	CVNMMGKREKKLGE	NS5	2942	2956	HLA-DRB1*11:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195212	DDRFBATLALNDMG	NS5	3163	3177	HLA-DRB1*04:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195223	DMGKVRKIDPQWEP	NS5	3175	3189	HLA-DRB1*03:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195236	EEFTRKVRSSNAIGA	NS5	2889	2903	HLA-DRB1*08:02	Dengue virus 1	ELISPOT	IFNg release	Positive
195354	GEKVKRQLNQLSKSE	NS5	2503	2517	HLA-DRB1*04:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195360	GGMLVRNPLSRNSTH	NS5	2694	2708	HLA-DRB1*08:02	Dengue virus 1	ELISPOT	IFNg release	Positive
195385	GLHKLGYLRDISKI	NS5	3003	3017	HLA-DRB1*08:02	Dengue virus 1	ELISPOT	IFNg release	Positive
195421	GTGNIVSAVNMTSRM	NS5	2716	2730	HLA-DRB1*08:02	Dengue virus 1	ELISPOT	IFNg release	Positive
195438	GYLRDISKIPGGNM	NS5	3008	3022	HLA-DRB1*08:02	Dengue virus 1	ELISPOT	IFNg release	Positive
195464	HWFSRENSLGSVEGE	NS5	2988	3002	HLA-DRB1*04:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195582	KPIDDRFATALNAL	NS5	3160	3174	HLA-DRB1*04:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195655	LLATSIFKLTQYNKV	NS5	3055	3069	HLA-DRB1*07:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195755	MGKVRKIDPQWEP	NS5	3176	3190	HLA-DRB1*03:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195781	NEDHWFSRGNLSGV	NS5	2985	2999	HLA-DRB1*04:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195783	NENLYDYMSTMKRFK	NS5	3368	3382	HLA-DRB1*11:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195786	NGTVMDSVISRRDQ	NS5	3078	3092	HLA-DRB1*03:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195824	NLYDYMSTMKRFKNE	NS5	3370	3384	HLA-DRB1*14:02	Dengue virus 1	ELISPOT	IFNg release	Positive
195852	QLIMKDGREIVVPCR	NS5	3207	3221	HLA-DRB1*03:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195903	RPKNGTVMDSVISRR	NS5	3074	3088	HLA-DRB1*03:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195923	RWLWGLFSRNKKPRI	NS5	2871	2885	HLA-DRB1*15:01	Dengue virus 1	ELISPOT	IFNg release	Positive
195956	SIFKLTQYNKVVRVQ	NS5	3059	3073	HLA-DRB1*09:01	Dengue virus 1	ELISPOT	IFNg release	Positive
196031	TCVYNMMGKREKKLG	NS5	2941	2955	HLA-DRB1*11:01	Dengue virus 1	ELISPOT	IFNg release	Positive
196039	TGNIVSAVNMTSRML	NS5	2717	2731	HLA-DRB1*04:01	Dengue virus 1	ELISPOT	IFNg release	Positive
196191	VTARWLWGLFSRNKK	NS5	2868	2882	HLA-DRB1*15:01	Dengue virus 1	ELISPOT	IFNg release	Positive
196211	WATNIQVAINQVRRL	NS5	3351	3365	HLA-DRB1*03:01	Dengue virus 1	ELISPOT	IFNg release	Positive
196220	WLWGLFSRNKKPRIC	NS5	2872	2886	HLA-DRB1*11:01	Dengue virus 1	ELISPOT	IFNg release	Positive
196241	YQNKVVRVQRPKNG	NS5	3065	3079	HLA-DRB1*08:02	Dengue virus 1	ELISPOT	IFNg release	Positive
196242	YQNKVVRVQRPKNG	NS5	3065	3079	HLA-DRB1*08:02	Dengue virus 1	ELISPOT	IFNg release	Positive
539096	ATSIFKLTQYNKVVR	NS5	3057	3071	HLA-DRB1*14:04	Dengue virus 1	ELISPOT	IFNg release	Positive
539107	AVNMTSRMLNFRFTM	NS5	2723	2737	HLA-DRB1*15:02	Dengue virus 1	ELISPOT	IFNg release	Positive
539350	GTAKLRWFVERNLVK	NS5	2551	2565	HLA-DRB1*09:01	Dengue virus 1	ELISPOT	IFNg release	Positive
539396	IDDRFBATLALNDM	NS5	3162	3176	HLA-DRB1*01:01	Dengue virus 1	ELISPOT	IFNg release	Positive
539435	ISGDDCVKPIDDRFAT	NS5	3152	3166	HLA class II	Dengue virus 1	ICS	IFNg release	Positive
539509	KSEFNKYKSGIMEVL	NS5	2515	2529	HLA-DRB1*15:02	Dengue virus 1	ELISPOT	IFNg release	Positive
539537	LAKAIFKLTQYNKV	NS5	3056	3070	HLA-DRB1*14:04	Dengue virus 1	ELISPOT	IFNg release	Positive
539691	MTSRMLNFRFTMAHR	NS5	17	31	HLA-DRB1*14:06	Dengue virus 1	ELISPOT	IFNg release	Positive
539700	MVNGVVRLLTKPWV	NS5	103	117	HLA-DRB1*12:02	Dengue virus 1	ELISPOT	IFNg release	Positive
539702	MVTQIAMTDTTTPGQ	NS5	2829	2843	HLA class II	Dengue virus 1	ICS	IFNg release	Positive
539862	RMLNFRFTMAHRKPT	NS5	20	34	HLA-DRB1*14:02	Dengue virus 1	ELISPOT	IFNg release	Positive
539905	SHHFHQLIMKDGREI	NS5	3202	3216	HLA-DRB1*13:01	Dengue virus 1	ELISPOT	IFNg release	Positive
540001	TSIFKLTQYNKVVRV	NS5	3058	3072	HLA-DRB1*09:01	Dengue virus 1	ELISPOT	IFNg release	Positive
540018	TYGLNFTNTMEAQLI	NS5	3098	3112	HLA-DRB1*15:06	Dengue virus 1	ELISPOT	IFNg release	Positive
540020	TYGLNFTNTMEVQLI	NS5	3098	3112	HLA-DRB1*04:03	Dengue virus 1	ELISPOT	IFNg release	Positive
540083	VRVQRPKSGTVMDV	NS5	96	110	HLA-DRB1*13:01	Dengue virus 1	ELISPOT	IFNg release	Positive
540100	VVKPIDDRFBATLAL	NS5	3157	3171	HLA class II	Dengue virus 1	ICS	IFNg release	Positive
540138	WQLMYFHRRLRLAA	NS5	3254	3268	HLA-DRB1*14:04	Dengue virus 1	ELISPOT	IFNg release	Positive
738814	ENLYDYMSTMKRFKN	NS5	3369	3383	HLA-DRB1*14:02	Dengue virus 1	ELISPOT	IFNg release	Positive
740024	QNKVVRVQRPKNGT	NS5	3066	3080	HLA-DRB1*14:06	Dengue virus 1	ELISPOT	IFNg release	Positive
740668	VQLIQMESEGIFLP	NS5	3109	3123	HLA-DRB1*11:04	Dengue virus 1	ELISPOT	IFNg release	Positive
740786	YLDYMSTMKRFKNES	NS5	3371	3385	HLA-DRB1*14:02	Dengue virus 1	ELISPOT	IFNg release	Positive
866481	EAVEDERFVLDVHRE	NS5	2916	2930	HLA-DQA1*01:01/DOB1*05:01	Dengue virus 1	ELISPOT	IFNg release	Positive
867505	KSYAQMWQLMYFHR	NS5	3248	3262	HLA-DRB1*01:01	Dengue virus 1	ELISPOT	IFNg release	Positive
868240	NKVVRVQRPKNGTV	NS5	3067	3081	HLA-DRB1*01:01	Dengue virus 1	ELISPOT	IFNg release	Positive
868296	PEHALATSIFKLT	NS5	3051	3065	HLA-DRB1*02:01	Dengue virus 1	ELISPOT	IFNg release	Positive
868641	RFLFEALGFNMEDH	NS5	2974	2988	HLA-DRB1*04:01	Dengue virus 1	ELISPOT	IFNg release	Positive
869091	TAKLRWFVERNLVKP	NS5	2552	2566	HLA-DQA1*01:01/DOB1*05:01	Dengue virus 1	ELISPOT	IFNg release	Positive

CD4 DENV-2 Epitopes

Epitope_ID	AminoAcid_Seq	Protein_Name	Start	End	Allele	Serotype	Method/Technique	Assay Group	Qualitative Measure
1066603	ARNTPFNMLKKERNR	C	8	22	HLA-DRB1*11:01	Dengue virus 2	ELISPOT	IFNg release	Positive-Low
150105	AFLRFLTIPPTAGIL	C	52	66	HLA-DRB1*01:01	Dengue virus 2	ELISPOT	IFNg release	Positive
150247	GMIIMLIPTVMAFHL	C	103	117	HLA-DRB1*01:01	Dengue virus 2	ELISPOT	IFNg release	Positive
150369	LKLFMALVAFLRFLT	C	44	58	HLA-DRB1*01:01	Dengue virus 2	ELISPOT	IFNg release	Positive
150404	LRLFMALVAFLRFLT	C	44	58	HLA-DRB1*11:01	Dengue virus 2	ELISPOT	IFNg release	Positive
180597	LFMALVAFLRFLTIP	C	46	60	HLA class II	Dengue virus 2	ELISPOT	IFNg release	Positive
180768	TIKSKAINVLRGFR	C	71	85	HLA class II	Dengue virus 2	ELISPOT	IFNg release	Positive
195120	AGMIIMLIPTVMAFH	C	102	116	HLA-DRB1*08:02	Dengue virus 2	ELISPOT	IFNg release	Positive
195121	AGMIIMLIPTVVAFH	C	102	116	HLA-DRB1*08:02	Dengue virus 2	ELISPOT	IFNg release	Positive
195307	FMALVAFLRFLTIPP	C	47	61	HLA-DRB1*11:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195326	FRKEIGRMLNILNRR	C	84	98	HLA-DRB1*04:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195369	GIIMIIPTVMAFHL	C	103	117	HLA-DRB1*08:02	Dengue virus 2	ELISPOT	IFNg release	Positive
195413	GPLRLFMALVAFLRF	C	42	56	HLA-DRB1*04:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195417	GRMLNILNRRRRTAG	C	89	103	HLA-DRB1*11:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195432	GVIIMIIPTVMAFHL	C	103	117	HLA-DRB1*08:02	Dengue virus 2	ELISPOT	IFNg release	Positive
195489	IGRMLNILNRRRRRTA	C	88	102	HLA-DRB1*08:02	Dengue virus 2	ELISPOT	IFNg release	Positive
195490	IGRMLNILNRRRRRTA	C	88	102	HLA-DRB1*11:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195496	IIMLIPTVMAFHLTT	C	105	119	HLA-DRB1*01:02	Dengue virus 2	ELISPOT	IFNg release	Positive
195556	KEIGRMLNILNRRRR	C	86	100	HLA-DRB1*08:02	Dengue virus 2	ELISPOT	IFNg release	Positive
195573	KLFMALVAFLRFLTI	C	45	59	HLA-DRB1*15:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195654	LKLYMALVAFLRFLT	C	44	58	HLA-DRB1*15:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195730	LVAFRLFTIPPTAG	C	50	64	HLA-DRB1*04:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195744	MALVAFLRFLTIPPT	C	48	62	HLA-DRB1*04:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195886	RGFRKEIGRMLNILN	C	82	96	HLA-DRB1*04:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195889	RGPLKLFMALVAFLR	C	41	55	HLA-DRB1*04:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195899	RMLNILNRRRRTAGV	C	71	85	HLA-DRB1*08:02	Dengue virus 2	ELISPOT	IFNg release	Positive
195910	RTAGVIIMMIPTVVA	C	100	114	HLA-DRB1*08:02	Dengue virus 2	ELISPOT	IFNg release	Positive
195911	RTASVIVMIPTVMA	C	100	114	HLA-DRB1*08:02	Dengue virus 2	ELISPOT	IFNg release	Positive
196024	TAGVIVMIPTVMAF	C	101	115	HLA-DRB1*08:02	Dengue virus 2	ELISPOT	IFNg release	Positive
196064	TPFNMLKKERNRVST	C	11	25	HLA-DRB1*08:02	Dengue virus 2	ELISPOT	IFNg release	Positive
196084	TVGVIIIMLIPTAMAF	C	101	115	HLA-DRB1*08:02	Dengue virus 2	ELISPOT	IFNg release	Positive
196093	VAFLRFLTIPPTAGI	C	51	65	HLA-DRB1*04:01	Dengue virus 2	ELISPOT	IFNg release	Positive
196213	WGTIKSKAINVLRG	C	69	83	HLA-DRB1*07:01	Dengue virus 2	ELISPOT	IFNg release	Positive
26836	IKSKAINVLRGFRKEIGRM	C	72	91	HLA class II	Dengue virus 2	ELISPOT	IFNg release	Positive
39098	LRGFRKEIGRML	C	81	92	HLA-DPw4	Dengue virus 2	ICS	IFNg release	Positive
53867	RGFRKEIGRMLNILNRRRS	C	17	35	HLA class II	Dengue virus 2	ELISPOT	IFNg release	Positive
539046	AFLRFLTIPPTVGIL	C	52	66	HLA-DRB1*10:01	Dengue virus 2	ELISPOT	IFNg release	Positive
539051	AFVAFLRFLTIPPTA	C	9	23	HLA-DRB1*15:02	Dengue virus 2	ELISPOT	IFNg release	Positive
539083	ALVAFLRFLTIPPTA	C	49	63	HLA-DRB1*12:02	Dengue virus 2	ELISPOT	IFNg release	Positive
539213	EIGRMLNILNKRRTT	C	87	101	HLA-DRB1*13:01	Dengue virus 2	ELISPOT	IFNg release	Positive
539214	EIGRMLNILNKRRTT	C	87	101	HLA-DRB1*12:02	Dengue virus 2	ELISPOT	IFNg release	Positive
539264	FLRFLTIPPTAGILK	C	53	67	HLA-DRB1*14:02	Dengue virus 2	ELISPOT	IFNg release	Positive
539343	GRMLNIMNRRRRRTAG	C	89	103	HLA-DRB1*13:01	Dengue virus 2	ELISPOT	IFNg release	Positive
539410	IKSKAINVLRGFRK	C	72	86	HLA-DRB1*14:04	Dengue virus 2	ELISPOT	IFNg release	Positive
539514	KSKAINVLRGFRKEI	C	74	88	HLA-DRB1*12:02	Dengue virus 2	ELISPOT	IFNg release	Positive
539549	LFTALVAFLRFLTIP	C	46	60	HLA-DRB1*15:06	Dengue virus 2	ELISPOT	IFNg release	Positive
539612	LQGRGPLKLFMALVA	C	38	52	HLA-DRB1*15:02	Dengue virus 2	ELISPOT	IFNg release	Positive
539618	LRGFRKEIGRMLNIL	C	81	95	HLA-DRB1*09:01	Dengue virus 2	ELISPOT	IFNg release	Positive
539887	RWGTIKSKAINVLR	C	68	82	HLA-DRB1*08:03	Dengue virus 2	ELISPOT	IFNg release	Positive
540060	VLRGFRKEIGRMLNI	C	80	94	HLA-DRB1*09:01	Dengue virus 2	ELISPOT	IFNg release	Positive
540069	VQQLTKRFLGMLQG	C	26	40	HLA-DRB1*13:01	Dengue virus 2	ELISPOT	IFNg release	Positive
62853	TAGILKRWGTTIKSKANVL	C	62	81	HLA class II	Dengue virus 2	ELISPOT	IFNg release	Positive
739176	IGRMLNILNKRRTTA	C	88	102	HLA-DRB1*14:02	Dengue virus 2	ELISPOT	IFNg release	Positive
739177	IGRMLNILNKRRTSA	C	88	102	HLA-DRB1*14:02	Dengue virus 2	ELISPOT	IFNg release	Positive
739179	IGRMLNILNKRRTSV	C	88	102	HLA-DRB1*14:02	Dengue virus 2	ELISPOT	IFNg release	Positive
739180	IGRMLNILNKRRTTT	C	88	102	HLA-DRB1*14:02	Dengue virus 2	ELISPOT	IFNg release	Positive
739181	IGRMLNILNKRRTV	C	42	56	HLA-DRB1*14:02	Dengue virus 2	ELISPOT	IFNg release	Positive
739182	IGRMLNIMNKRRTTA	C	88	102	HLA-DRB1*14:02	Dengue virus 2	ELISPOT	IFNg release	Positive
739183	IGRMMNILNKRRTTA	C	88	102	HLA-DRB1*14:02	Dengue virus 2	ELISPOT	IFNg release	Positive
739879	PFNMLKKERNRVSTV	C	12	26	HLA-DRB1*14:02	Dengue virus 2	ELISPOT	IFNg release	Positive
740399	STPFNMLKKERNRVSV	C	10	24	HLA-DRB1*14:02	Dengue virus 2	ELISPOT	IFNg release	Positive
740579	VAFLRFLTIPPTAGI	C	51	65	HLA-DRB1*04:07	Dengue virus 2	ELISPOT	IFNg release	Positive
857784	LKRWGTIKSKAINV	C	66	80	HLA-DRB1*07:01	Dengue virus 2	ELISPOT	IFNg release	Positive-Low
866992	GPLKLYMALVAFLRF	C	42	56	HLA-DRB5*01:01	Dengue virus 2	ELISPOT	IFNg release	Positive
867734	LKGRKEIGRMLNIL	C	81	95	HLA-DRB3*02:02	Dengue virus 2	ELISPOT	IFNg release	Positive
867910	LRGFRKEIGRMLNIM	C	81	95	HLA-DRB3*02:02	Dengue virus 2	ELISPOT	IFNg release	Positive
867911	LRGFRREIGRMLNIL	C	81	95	HLA-DRB3*02:02	Dengue virus 2	ELISPOT	IFNg release	Positive
868674	RLFMALVAFLRFLTI	C	45	59	HLA-DPB1*04:02	Dengue virus 2	ELISPOT	IFNg release	Positive
150280	HPGFTLMAAILAYTI	PreM	244	258	HLA-DRB1*01:01	Dengue virus 2	ELISPOT	IFNg release	Positive
150490	PGFTIMAAILAYTIG	PreM	245	259	HLA-DRB1*01:01	Dengue virus 2	ELISPOT	IFNg release	Positive
180708	QRIETWILRHPGFTM	PreM	121	135	HLA class II	Dengue virus 2	ELISPOT	IFNg release	Positive-Low
195318	FQKILIFILLTAVAP	PreM	263	277	HLA-DRB1*07:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195320	FQRTLIFILLTAVAP	PreM	263	277	HLA-DRB1*07:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195322	FQRLVIFILLTAVAP	PreM	263	277	HLA-DRB1*07:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195448	HFQRALIFILLTAVA	PreM	262	276	HLA-DRB1*07:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195503	ILRHPPGFTIMAAILA	PreM	127	141	HLA-DRB1*07:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195504	ILRHPPGFTLMAAILA	PreM	241	255	HLA-DRB1*15:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195702	LRHPPGFTIMAAILAY	PreM	242	256	HLA-DRB1*11:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195862	QRALIFILLTAVAPS	PreM	264	278	HLA-DRB1*15:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195863	QRLVIFILLTAVAPS	PreM	264	278	HLA-DRB1*08:02	Dengue virus 2	ELISPOT	IFNg release	Positive
195892	RIETWILRHPGFTIM	PreM	122	136	HLA-DRB1*15:01	Dengue virus 2	ELISPOT	IFNg release	Positive
196045	THFQRALIFILLTAV	PreM	261	275	HLA-DRB1*07:01	Dengue virus 2	ELISPOT	IFNg release	Positive
196141	VLIFILLTAIAPSMT	PreM	266	280	HLA-DRB1*08:02	Dengue virus 2	ELISPOT	IFNg release	Positive
196232	YFQRLVIFILLTAVT	PreM	262	276	HLA-DRB1*07:01	Dengue virus 2	ELISPOT	IFNg release	Positive
539881	RVLIFILLTAIAPSM	PreM	265	279	HLA-DRB1*15:06	Dengue virus 2	ELISPOT	IFNg release	Positive

539943	SVALPHVGMGLETR	PreM	206	220	HLA-DRB1*15:02	Dengue virus 2	ELISPOT	IFNg release	Positive
540130	WILRHPGFTIMAAIL	PreM	126	140	HLA-DRB1*15:06	Dengue virus 2	ELISPOT	IFNg release	Positive
739425	LAYTIGTTHFQRALI	PreM	254	268	HLA-DRB1*04:07	Dengue virus 2	ELISPOT	IFNg release	Positive
866485	EDGVNMCTLMAIDLG	PreM	142	156	HLA-DQA1*01:02/DQB1*06:02	Dengue virus 2	ELISPOT	IFNg release	Positive
868650	RHPGFTLMAAILAYT	PreM	243	257	HLA-DQA1*01:02/DQB1*06:02	Dengue virus 2	ELISPOT	IFNg release	Positive
144940	RHVLGRLITVNPVIT	E	345	359	HLA-DRB1*08:02	Dengue virus 2	ELISPOT	IFNg release	Positive
180564	KKQDQVVVLGSQEGAM	E	526	540	HLA class II	Dengue virus 2	ELISPOT	IFNg release	Positive
180568	KNPHAKKQDVVVLGS	E	521	535	HLA class II	Dengue virus 2	ELISPOT	IFNg release	Positive
180590	LDRELITKEAKQPAT	E	41	55	HLA class II	Dengue virus 2	ELISPOT	IFNg release	Positive
180820	WLVRHQWFLDPLPW	E	196	210	HLA class II	Dengue virus 2	ELISPOT	IFNg release	Positive
195351	GATEIQMSSGNLLFT	E	266	280	HLA-DRB1*03:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195366	GHLKCRLRMDKLQLK	E	281	295	HLA-DRB1*03:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195407	GMNSRSTLSVSLVL	E	467	481	HLA-DRB1*07:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195638	LGRLITVNPVITEKD	E	628	642	HLA-DRB1*08:02	Dengue virus 2	ELISPOT	IFNg release	Positive
195716	LSVSLVLGVVTLYL	E	755	769	HLA-DRB1*15:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195793	NLEYITMITPHSGEE	E	134	148	HLA-DRB1*04:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195952	SGVSWTMKILUGVII	E	449	463	HLA-DRB1*15:01	Dengue virus 2	ELISPOT	IFNg release	Positive
196022	SWTMKILIGVIITWI	E	452	466	HLA-DRB1*08:02	Dengue virus 2	ELISPOT	IFNg release	Positive
196077	TSLSVSLVLGVVTL	E	753	767	HLA-DRB1*07:01	Dengue virus 2	ELISPOT	IFNg release	Positive
196140	VLGRITVNPVITEK	E	627	641	HLA-DRB1*08:02	Dengue virus 2	ELISPOT	IFNg release	Positive
196215	WIQETLVTFKNPHA	E	231	245	HLA-DRB1*08:02	Dengue virus 2	ELISPOT	IFNg release	Positive
539236	ENLEYITVITPHSGE	E	133	147	HLA-DRB1*04:07	Dengue virus 2	ELISPOT	IFNg release	Positive
539252	FETTMRGAKRMAILG	E	402	416	HLA-DRB1*15:02	Dengue virus 2	ELISPOT	IFNg release	Positive
539377	HAKKQDQVVVLGSQEGAMH	E	244	261	HLA class II	Dengue virus 2	ICS	IFNg release	Positive
539427	IQKTLVTFKNPHAK	E	512	526	HLA-DRB1*04:03	Dengue virus 2	ELISPOT	IFNg release	Positive
539462	KEMLVTFKNPHAKRQ	E	514	528	HLA-DRB1*04:03	Dengue virus 2	ELISPOT	IFNg release	Positive
539464	KETLVTFKNPHAKKQ	E	234	248	HLA-DRB1*10:01	Dengue virus 2	ELISPOT	IFNg release	Positive
539479	KKTLVTFKNPHAKKQ	E	514	528	HLA-DRB1*14:04	Dengue virus 2	ELISPOT	IFNg release	Positive
539629	LSVTLVLGVFVTLYL	E	475	489	HLA-DRB1*15:06	Dengue virus 2	ELISPOT	IFNg release	Positive
539648	LVTFKNPHAKKQDVV	E	237	251	HLA-DRB1*15:02	Dengue virus 2	ELISPOT	IFNg release	Positive
539689	MARGAKRMAILGDTAW	E	406	420	HLA-DRB1*15:06	Dengue virus 2	ELISPOT	IFNg release	Positive
539733	NLEYITVITPHSGEE	E	134	148	HLA-DRB1*04:07	Dengue virus 2	ELISPOT	IFNg release	Positive
539806	QKETLVTFKNPHAKK	E	513	527	HLA-DRB1*04:03	Dengue virus 2	ELISPOT	IFNg release	Positive
65140	TLVTFKNPHAKKQDV	E	236	250	HLA class II	Dengue virus 2	ELISPOT	IFNg release	Positive
738866	EYITVITPHSGEEHA	E	136	150	HLA-DRB1*04:07	Dengue virus 2	ELISPOT	IFNg release	Positive
739010	GGVFTSISGKALHQVF	E	706	720	HLA-DRB1*14:02	Dengue virus 2	ELISPOT	IFNg release	Positive
740315	SLSVSLVLGVVVTLY	E	754	768	HLA-DRB1*01:02	Dengue virus 2	ELISPOT	IFNg release	Positive
741744	MRCIGISNDRFVEGVSGSW	E	281	300	HLA class II	Dengue virus 2	ELISPOT	IFNg release	Positive
866193	ATEIQMSSGNLLFTG	E	257	271	HLA-DRB3*02:02	Dengue virus 2	ELISPOT	IFNg release	Positive
866243	AWMVHRQWFLDPLP	E	205	219	HLA-DQA1*01:01/DQB1*05:01	Dengue virus 2	ELISPOT	IFNg release	Positive
867375	KAWLVHRQWFLDLPF	E	204	218	HLA-DQA1*01:01/DQB1*05:01	Dengue virus 2	ELISPOT	IFNg release	Positive
868347	PPFGDSVVIIGVEPG	E	371	385	HLA-DQA1*03:01/DQB1*03:02	Dengue virus 2	ELISPOT	IFNg release	Positive
868713	RTGLDFNEMVLLQME	E	178	192	HLA-DQA1*01:02/DQB1*06:02	Dengue virus 2	ELISPOT	IFNg release	Positive
869123	TEKDSVPNIEAPPF	E	349	363	HLA-DQA1*03:01/DQB1*03:02	Dengue virus 2	ELISPOT	IFNg release	Positive
869152	TGLDFNEMVLLQMED	E	189	203	HLA-DQA1*03:01/DQB1*03:02	Dengue virus 2	ELISPOT	IFNg release	Positive
869153	TGLDFNEMVLLQMEN	E	179	193	HLA-DQA1*03:01/DQB1*03:02	Dengue virus 2	ELISPOT	IFNg release	Positive
167759	IMTGDIKGIMQA	NS1	88	99	HLA-DQ6	Dengue virus 2	ELISPOT	IFNg release	Positive
180396	DGCWYGMERPLKEKEENLVNS	NS1	1102	1123	HLA class II	Dengue virus 2	ICS	IFNg release	Positive
180603	LKYSWKTWKGAKMLS	NS1	111	125	HLA class II	Dengue virus 2	ELISPOT	IFNg release	Positive
180612	LNNDTWKIEKASFIEV	NS1	981	995	HLA class II	Dengue virus 2	ELISPOT	IFNg release	Positive
195458	HNQTFIDGPETAEC	NS1	904	918	HLA-DRB1*04:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195576	KLTIMTGDIKGIMQA	NS1	85	99	HLA-DRB1*03:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195583	KQDVFCDSKLMSAAI	NS1	949	963	HLA-DRB1*03:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195845	QDVFCDSKLMSAAIK	NS1	175	189	HLA-DRB1*03:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195880	REKQDVFCDSKLMSA	NS1	947	961	HLA-DRB1*03:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195954	SHNQTFIDGPETAEC	NS1	903	917	HLA-DRB1*04:01	Dengue virus 2	ELISPOT	IFNg release	Positive
196133	VKLTIMTGDIKGIMQ	NS1	84	98	HLA-DRB1*03:01	Dengue virus 2	ELISPOT	IFNg release	Positive
539708	NDTWKMEKASFIEVK	NS1	982	996	HLA-DRB1*09:01	Dengue virus 2	ELISPOT	IFNg release	Positive
539828	QYKFQSPESPSKLASA	NS1	806	820	HLA-DRB3*02:02	Dengue virus 2	ELISPOT	IFNg release	Positive
738586	CGIRSVRTLENLMWK	NS1	55	69	HLA-DRB1*11:04	Dengue virus 2	ELISPOT	IFNg release	Positive
738766	EGICGIRSVTRLLENL	NS1	52	66	HLA-DRB1*11:04	Dengue virus 2	ELISPOT	IFNg release	Positive
739191	IKGIMHAGKRSRLRPQ	NS1	868	882	HLA-DRB1*14:02	Dengue virus 2	ELISPOT	IFNg release	Positive
739192	IKGIMQAGKRSRLRPQ	NS1	93	107	HLA-DRB1*14:06	Dengue virus 2	ELISPOT	IFNg release	Positive
739296	KGIMQAGKRSRLPOP	NS1	94	108	HLA-DRB1*14:06	Dengue virus 2	ELISPOT	IFNg release	Positive
866460	DYFGVFVTNNIWLKL	NS1	932	946	HLA-DPB1*02:01	Dengue virus 2	ELISPOT	IFNg release	Positive
866699	FGVFTTNIWLKLREK	NS1	935	949	HLA-DPB1*04:01	Dengue virus 2	ELISPOT	IFNg release	Positive
866829	FGFFTTNIWLKLRE	NS1	934	948	HLA-DPB1*01:01	Dengue virus 2	ELISPOT	IFNg release	Positive
866830	FGVFTTNIWLKLKE	NS1	934	948	HLA-DPB1*04:01	Dengue virus 2	ELISPOT	IFNg release	Positive
866831	FGVFTTNIWLKLRE	NS1	934	948	HLA-DPB1*04:01	Dengue virus 2	ELISPOT	IFNg release	Positive
867040	HADMGYWIESALNDT	NS1	970	984	HLA-DQA1*01:01/DQB1*05:01	Dengue virus 2	ELISPOT	IFNg release	Positive
869722	YGFVFTTNIWLKLRL	NS1	933	947	HLA-DPB1*04:01	Dengue virus 2	ELISPOT	IFNg release	Positive
150131	ALTIKGLNPFTAFLT	NS2a	1308	1322	HLA-DRB1*09:01	Dengue virus 2	ELISPOT	IFNg release	Positive
150245	GMGVTLALLAAYKV	NS2a	1196	1210	HLA-DRB1*01:01	Dengue virus 2	ELISPOT	IFNg release	Positive
150273	GVTYLALLAAFKVRP	NS2a	1198	1212	HLA-DRB1*01:01	Dengue virus 2	ELISPOT	IFNg release	Positive
167819	SSQKTDWIPALTIKGLNP	NS2a	184	203	HLA-DP	Dengue virus 2	ELISPOT	IFNg release	Positive
195153	ALLAAFKVRPTFAAG	NS2a	1203	1217	HLA-DRB1*08:02	Dengue virus 2	ELISPOT	IFNg release	Positive
195207	CTILAVSVSPLLLT	NS2a	1144	1158	HLA-DRB1*07:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195269	ERYQLAVTTAILCV	NS2a	1268	1282	HLA-DRB1*07:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195406	GMMVLKIVRNMEKYQ	NS2a	1257	1271	HLA-DRB1*08:02	Dengue virus 2	ELISPOT	IFNg release	Positive
195523	IPVLIIKGLNPATI	NS2a	1319	1333	HLA-DRB1*08:02	Dengue virus 2	ELISPOT	IFNg release	Positive
195567	KHAILLVAVSFVTLI	NS2a	1157	1171	HLA-DRB1*07:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195610	LALGMMVLKIVRNME	NS2a	1254	1268	HLA-DRB1*13:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195615	LAUVSVSPLLLTSSQ	NS2a	1186	1200	HLA-DRB1*07:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195650	LKIVRNMEKYQLAVT	NS2a	1261	1275	HLA-DRB1*13:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195688	LNPTAIFLTLSRSTS	NS2a	1328	1342	HLA-DRB1*07:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195712	LSLTFIRSTPLIMA	NS2a	1275	1289	HLA-DRB1*07:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195752	MEKYQLAVTIMAILC	NS2a	1154	1168	HLA-DRB1*04:07	Dengue virus 2	ELISPOT	IFNg release	Positive
195753	MEKYQLAVTIMAISC	NS2a	1267	1281	HLA-DRB1*10:01	Dengue virus 2	ELISPOT	IFNg release	Positive

195763	MMVLKIVRKEMERYQL	NS2a	1258	1272	HLA-DRB1*03:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195798	NMEKYQLAVTIMAIL	NS2a	1266	1280	HLA-DRB1*04:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195799	NMEKYQLAVTIMAIS	NS2a	1266	1280	HLA-DRB1*04:01	Dengue virus 2	ELISPOT	IFNg release	Positive
196174	VRNMEKYQLAVTIMA	NS2a	1264	1278	HLA-DRB1*13:01	Dengue virus 2	ELISPOT	IFNg release	Positive
196217	WKVSCITLAAVSVSP	NS2a	1292	1306	HLA-DRB1*04:01	Dengue virus 2	ELISPOT	IFNg release	Positive
196218	WKVSCITLAAVSVSP	NS2a	1292	1306	HLA-DRB1*04:01	Dengue virus 2	ELISPOT	IFNg release	Positive
196237	YQLAVTIMAISCVPN	NS2a	1270	1284	HLA-DRB1*08:02	Dengue virus 2	ELISPOT	IFNg release	Positive
539077	ALGIMVLKIMVRSMEK	NS2a	1255	1269	HLA-DRB1*12:02	Dengue virus 2	ELISPOT	IFNg release	Positive
539082	ALTIKGLNPATILLT	NS2a	1322	1336	HLA-DRB1*09:01	Dengue virus 2	ELISPOT	IFNg release	Positive
539108	AVSFVTLITGNMSFR	NS2a	1164	1178	HLA-DRB1*10:01	Dengue virus 2	ELISPOT	IFNg release	Positive
539110	AWALGMMVLKIVRNMM	NS2a	1253	1267	HLA-DRB1*13:01	Dengue virus 2	ELISPOT	IFNg release	Positive
539231	ENMLRTRVGTKHAILL	NS2a	1148	1162	HLA-DRB1*08:03	Dengue virus 2	ELISPOT	IFNg release	Positive
539392	IALGIMVLKIMVRSME	NS2a	1254	1268	HLA-DRB1*13:01	Dengue virus 2	ELISPOT	IFNg release	Positive
539474	KIVRNMEKYQLAVTI	NS2a	1262	1276	HLA-DRB1*13:01	Dengue virus 2	ELISPOT	IFNg release	Positive
539540	LALLAAFKVRPTFAA	NS2a	1202	1216	HLA-DRB1*14:04	Dengue virus 2	ELISPOT	IFNg release	Positive
539556	LGMIMLKLVRKMEKY	NS2a	1256	1270	HLA-DRB1*12:02	Dengue virus 2	ELISPOT	IFNg release	Positive
539557	LGIMVLKIVRSMEKY	NS2a	1256	1270	HLA-DRB1*12:02	Dengue virus 2	ELISPOT	IFNg release	Positive
539561	LGMIMLKIVRNMEKY	NS2a	1256	1270	HLA-DRB1*13:01	Dengue virus 2	ELISPOT	IFNg release	Positive
539562	LGMIMVLKIVRNMEKY	NS2a	1256	1270	HLA-DRB1*12:02	Dengue virus 2	ELISPOT	IFNg release	Positive
539686	MMVLKIVRNMEKYQL	NS2a	1244	1258	HLA-DRB1*14:06	Dengue virus 2	ELISPOT	IFNg release	Positive
539699	MVLKIMVRSMEKYQLA	NS2a	1259	1273	HLA-DRB1*13:01	Dengue virus 2	ELISPOT	IFNg release	Positive
539706	NAWKVSCITLAAVSV	NS2a	1290	1304	HLA-DRB1*09:01	Dengue virus 2	ELISPOT	IFNg release	Positive
539789	PTAIFLTLSRTSKK	NS2a	1316	1330	HLA-DRB1*04:03	Dengue virus 2	ELISPOT	IFNg release	Positive
539893	SCITLAAVSVSPILL	NS2a	1295	1309	HLA-DRB1*10:01	Dengue virus 2	ELISPOT	IFNg release	Positive
539959	TAIFLTLSRTSKKR	NS2a	1317	1331	HLA-DRB1*14:02	Dengue virus 2	ELISPOT	IFNg release	Positive
540026	VAVSFVTLITGNMSF	NS2a	1163	1177	HLA-DRB1*10:01	Dengue virus 2	ELISPOT	IFNg release	Positive
540086	VSFVTLITGNMSFRD	NS2a	1165	1179	HLA-DRB1*10:01	Dengue virus 2	ELISPOT	IFNg release	Positive
540094	VTYLALLAAFKVRPT	NS2a	1199	1213	HLA-DRB1*12:02	Dengue virus 2	ELISPOT	IFNg release	Positive
540154	YLALLAAFKVRPTFA	NS2a	1201	1215	HLA-DRB1*14:04	Dengue virus 2	ELISPOT	IFNg release	Positive
740700	VVSVSPILLTSSQKQ	NS2a	1188	1202	HLA-DRB1*01:02	Dengue virus 2	ELISPOT	IFNg release	Positive
866586	EKYQLAVTIMAISCV	NS2a	1268	1282	HLA-DQA1*01:02/DQB1*06:02	Dengue virus 2	ELISPOT	IFNg release	Positive
866978	GMALFLEMLRTRVG	NS2a	1141	1155	HLA-DQA1*01:01/DQB1*05:01	Dengue virus 2	ELISPOT	IFNg release	Positive
867216	ILCVNPAVILQNAWK	NS2a	1279	1293	HLA-DQA1*01:02/DQB1*06:02	Dengue virus 2	ELISPOT	IFNg release	Positive
867571	LCVNPNAVILQNAWKV	NS2a	1280	1294	HLA-DRB4*01:01	Dengue virus 2	ELISPOT	IFNg release	Positive
868918	SLGVLGMALFLEEML	NS2a	1136	1150	HLA-DQA1*05:01/DQB1*02:01	Dengue virus 2	ELISPOT	IFNg release	Positive
869200	TKHAILLVAVSFVTL	NS2a	1156	1170	HLA-DPB1*04:01	Dengue virus 2	ELISPOT	IFNg release	Positive
150433	MAVGMMVSIASSLLK	NS2b	1354	1368	HLA-DRB1*01:01	Dengue virus 2	ELISPOT	IFNg release	Positive
167732	DQAEISGSSPILSITISEDG	NS2b	63	82	HLA-DP	Dengue virus 2	ELISPOT	IFNg release	Positive
195239	EEQTLTILIRTGILLV	NS2b	91	105	HLA-DRB1*15:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195512	IMAVGMMVSIASSLL	NS2b	8	22	HLA-DRB1*07:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195723	LTLIRTGILLVISGL	NS2b	1440	1454	HLA-DRB1*15:06	Dengue virus 2	ELISPOT	IFNg release	Positive
195869	QTLTILIRTGILLVIS	NS2b	1438	1452	HLA-DRB1*15:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195913	RTGLLVISGVPFVSI	NS2b	1445	1459	HLA-DRB1*08:02	Dengue virus 2	ELISPOT	IFNg release	Positive
195992	SSLLKNDIPMTGPLV	NS2b	19	33	HLA-DRB1*03:01	Dengue virus 2	ELISPOT	IFNg release	Positive
539574	LIRTGILLVISGVPFV	NS2b	1443	1457	HLA-DRB1*13:01	Dengue virus 2	ELISPOT	IFNg release	Positive
866986	GMVSIASSLLKNDI	NS2b	1357	1371	HLA-DPB1*01:01	Dengue virus 2	ELISPOT	IFNg release	Positive
1067121	GKVVGLYGNVGVTRS	NS3	1619	1633	HLA-DRB1*15:01	Dengue virus 2	ELISPOT	IFNg release	Positive
12372	EHTGREIVDLMCHAT	NS3	250	264	HLA class II	Dengue virus 2	ELISPOT	IFNg release	Positive
12606	EIVDLMCHATFTMRL	NS3	255	269	HLA class II	Dengue virus 2	ELISPOT	IFNg release	Positive
1392191	GREIVDLMCHATFTM	NS3	1728	1742		Dengue virus 2	biological activity	activation	Positive
139758	GKTKRYLPAIVREAI	NS3	1673	1687	HLA-DRB1*09:01	Dengue virus 2	ELISPOT	IFNg release	Positive
139762	GLPIRYQTPAIRAEH	NS3	1712	1726	HLA-DRB1*04:03	Dengue virus 2	ELISPOT	IFNg release	Positive
180698	PNYNLIIMDEAHFTD	NS3	1751	1765	HLA class II	Dengue virus 2	ELISPOT	IFNg release	Positive
180807	VTDFKGTWVWFVPSI	NS3	1826	1840	HLA class II	Dengue virus 2	ELISPOT	IFNg release	Positive-Low
195154	ALRGLPIRYQTPAIR	NS3	1709	1723	HLA-DRB1*08:02	Dengue virus 2	ELISPOT	IFNg release	Positive
195295	FHTMWHVTRGAVLHM	NS3	1521	1535	HLA-DRB1*07:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195420	GTFTMWHVTRGAVL	NS3	1519	1533	HLA-DRB1*07:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195564	KGKVVGLYGNVGVTR	NS3	1618	1632	HLA-DRB1*15:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195765	MRLLSPVRVPPNYNLI	NS3	1742	1756	HLA-DRB1*13:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195888	RLGLTLILAPTRVVA	NS3	1689	1703	HLA-DRB1*08:02	Dengue virus 2	ELISPOT	IFNg release	Positive
21115	GLRTLILAPTRVVAA	NS3	1690	1704	HLA-DRB1*04:03	Dengue virus 2	ELISPOT	IFNg release	Positive
24916	HTGREIVDLMCHATE	NS3	251	265	HLA-DPw2	Dengue virus 2	ICS	IFNg release	Positive
26965	ILAPTRVVAAMEEEA	NS3	1695	1709	HLA-DQA1*03:01/DQB1*03:02	Dengue virus 2	ELISPOT	IFNg release	Positive
30396	KEGERKKLPRWLDA	NS3	584	598	HLA class II	Dengue virus 2	ICS	IFNg release	Positive
31726	KKVILQSRKTFDSEY	NS3	1855	1869	HLA-DRB1*12:02	Dengue virus 2	ELISPOT	IFNg release	Positive
34231	KVVGLYGNVGVTRSG	NS3	145	159	HLA class II	Dengue virus 2	ELISPOT	IFNg release	Positive
36560	LIIIMDEAHFTDPASI	NS3	1755	1769	HLA-DQA1*01:01/DQB1*05:01	Dengue virus 2	ELISPOT	IFNg release	Positive
39103	LRGLPIRYQTPAIRA	NS3	1696	1710	HLA-DRB1*14:02	Dengue virus 2	ELISPOT	IFNg release	Positive
39225	LRTLILAPTRVVAAE	NS3	1691	1705	HLA-DRB1*12:02	Dengue virus 2	ELISPOT	IFNg release	Positive
4152	ARGYSTRVEMGEAA	NS3	1757	1771	HLA-DRB1*04:07	Dengue virus 2	ELISPOT	IFNg release	Positive
49766	PTRVVAAMEEALRG	NS3	223	237	HLA-DRB1*15:01	Dengue virus 2	ICS	IFNg release	Positive
539025	AAGIFMTATPPGSRD	NS3	1784	1798	HLA-DRB1*04:03	Dengue virus 2	ELISPOT	IFNg release	Positive
539041	AEMEELRGLPIRYQ	NS3	1704	1718	HLA-DRB1*13:01	Dengue virus 2	ELISPOT	IFNg release	Positive
539200	EDDIFRKKRLTIMDL	NS3	1654	1668	HLA-DRB1*13:01	Dengue virus 2	ELISPOT	IFNg release	Positive
539203	EEVRILAGPMPVTHS	NS3	1899	1913	HLA-DRB1*09:01	Dengue virus 2	ELISPOT	IFNg release	Positive
539283	GAYRIKQRGILGVSQ	NS3	1496	1510	HLA-DRB1*08:03	Dengue virus 2	ELISPOT	IFNg release	Positive
539289	GEAAGIFMTATPPGS	NS3	1782	1796	HLA-DRB1*04:03	Dengue virus 2	ELISPOT	IFNg release	Positive
539448	IVREAIKRLRTLIL	NS3	1682	1696	HLA-DRB1*12:02	Dengue virus 2	ELISPOT	IFNg release	Positive
539467	KGKTVWFVPSIKAGN	NS3	1830	1844	HLA-DRB1*08:03	Dengue virus 2	ELISPOT	IFNg release	Positive
539573	LILAPTRVVAAMEEE	NS3	1694	1708	HLA-DRB1*13:01	Dengue virus 2	ELISPOT	IFNg release	Positive
539713	NGKKVILQSRKTFDS	NS3	1853	1867	HLA-DRB1*12:02	Dengue virus 2	ELISPOT	IFNg release	Positive
539850	RLGLPIRYQTPAIRAE	NS3	1711	1725	HLA-DRB1*13:01	Dengue virus 2	ELISPOT	IFNg release	Positive
539857	RKNGKVKIQLSRKTF	NS3	1851	1865	HLA-DRB1*08:03	Dengue virus 2	ELISPOT	IFNg release	Positive
540056	VLMHKKGRIEPSWAD	NS3	1518	1532	HLA-DRB1*13:01	Dengue virus 2	ELISPOT	IFNg release	Positive
54390	RKLTIMDLHPGAGKT	NS3	618	632	HLA class II	Dengue virus 2	ICS	IFNg release	Positive
63672	TFHTMWHVTRGAVLM	NS3	45	59	HLA class II	Dengue virus 2	ELISPOT	IFNg release	Positive
64666	TKRYLPAIVREAIKR	NS3	200	214	HLA class II	Dengue virus 2	ELISPOT	IFNg release	Positive
739148	IDKKGKVVGLYGNV	NS3	1615	1629	HLA-DRB1*01:02	Dengue virus 2	ELISPOT	IFNg release	Positive

740081	REAIKRLRLILAP	NS3	1670	1684	HLA-DRB1*14:06	Dengue virus 2	ELISPOT	IFNg release	Positive
740193	RTLILAPTRVVAEM	NS3	1678	1692	HLA-DRB1*14:06	Dengue virus 2	ELISPOT	IFNg release	Positive
866477	EALRGLPIRYQTPAI	NS3	1708	1722	HLA-DRB4*01:01	Dengue virus 2	ELISPOT	IFNg release	Positive
868183	MWHTVRGAVLMHRGK	NS3	1524	1538	HLA-DRB3*02:02	Dengue virus 2	ELISPOT	IFNg release	Positive
868724	RTNDWDFVTTDISE	NS3	1873	1887	HLA-DQA1*03:01/DQB1*03:02	Dengue virus 2	ELISPOT	IFNg release	Positive
868734	RYLPAIVREAIKRL	NS3	1677	1691	HLA-DRB4*01:01	Dengue virus 2	ELISPOT	IFNg release	Positive
869224	TLILAPTRVVAEME	NS3	1693	1707	HLA-DQA1*01:02/DQB1*06:02	Dengue virus 2	ELISPOT	IFNg release	Positive
8911	DKKGKVVGLYGNVGV	NS3	141	155	HLA-DRB1*15:01	Dengue virus 2	ICS	IFNg release	Positive
150192	ETLLLLTLAAVTGG	NS4a	2146	2160	HLA-DRB1*01:01	Dengue virus 2	ELISPOT	IFNg release	Positive
150362	LETLLLLTLATVTG	NS4a	2145	2159	HLA-DRB1*01:01	Dengue virus 2	ELISPOT	IFNg release	Positive
167780	LTNLNITEMGRLPFTMTQKA	NS4a	2	21	HLA class II	Dengue virus 2	ELISPOT	IFNg release	Positive
195107	AASIIIEFFLIVLLI	NS4a	2185	2199	HLA-DRB1*15:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195355	GGIFLFLMSGKGIGK	NS4a	2145	2159	HLA-DRB1*11:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195356	GGIFLFLMSGRGIGK	NS4a	2159	2173	HLA-DRB1*11:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195414	GRAYNHALSELPETL	NS4a	2131	2145	HLA-DRB1*04:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195635	LGMCCIITASILWY	NS4a	2176	2190	HLA-DRB1*07:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195767	MTLGMCCIIITASIL	NS4a	2160	2174	HLA-DRB1*07:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195810	NQLTYVVAIALTLVA	NS4a	2225	2239	HLA-DRB1*07:01	Dengue virus 2	ELISPOT	IFNg release	Positive
196054	TLETLLLLTLATVT	NS4a	2144	2158	HLA-DRB1*15:01	Dengue virus 2	ELISPOT	IFNg release	Positive
196089	TVTGGIFLFLMSGKG	NS4a	2142	2156	HLA-DRB1*11:01	Dengue virus 2	ELISPOT	IFNg release	Positive
539609	LPTFMTQKARNALDN	NS4a	2092	2106	HLA-DRB1*10:01	Dengue virus 2	ELISPOT	IFNg release	Positive
539801	QDNQLTYVVAIALTV	NS4a	2223	2237	HLA-DRB1*15:02	Dengue virus 2	ELISPOT	IFNg release	Positive
539804	QIQPHWIAASIIIEF	NS4a	2192	2206	HLA-DRB1*13:01	Dengue virus 2	ELISPOT	IFNg release	Positive
540148	YAIQIQPHWIAASII	NS4a	2176	2190	HLA-DRB1*13:01	Dengue virus 2	ELISPOT	IFNg release	Positive
738567	AYNHALSELPETLET	NS4a	2119	2133	HLA-DRB1*04:07	Dengue virus 2	ELISPOT	IFNg release	Positive
150611	TAALLLVVAHYAIG	NS4b	2351	2365	HLA-DRB1*01:01	Dengue virus 2	ELISPOT	IFNg release	Positive
150636	TLTAALLLVVAHYAI	NS4b	2335	2349	HLA-DRB1*01:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195115	AGAGLLFSIMKNTTN	NS4b	2474	2488	HLA-DRB1*11:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195118	AGLLFSIMRNTTSAR	NS4b	2476	2490	HLA-DRB1*04:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195270	ESENILDILRPAS	NS4b	2265	2279	HLA-DRB1*03:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195347	GAGLLFSIMKNTTNT	NS4b	2475	2489	HLA-DRB1*11:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195387	GLLFFIMKNTTNR	NS4b	2477	2491	HLA-DRB1*04:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195393	GLLFSIMKNTANTRR	NS4b	2463	2477	HLA-DRB1*04:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195394	GLLFSIMKNTNARR	NS4b	2477	2491	HLA-DRB1*04:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195395	GLLFSIMKNTTNSRR	NS4b	2477	2491	HLA-DRB1*04:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195396	GLLFSIMKNTTSARR	NS4b	2477	2491	HLA-DRB1*04:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195397	GLLFSIMKNTTSTRR	NS4b	2477	2491	HLA-DRB1*04:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195398	GLLFSVMKNTTNR	NS4b	2477	2491	HLA-DRB1*04:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195621	LCVTVQLMMRTTWA	NS4b	2405	2419	HLA-DRB1*07:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195629	LFSIMKNTTNRRTG	NS4b	2479	2493	HLA-DRB1*03:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195658	LLFSIMKNTTNR	NS4b	2478	2492	HLA-DRB1*04:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195659	LLFSIMRNTTTARRG	NS4b	2478	2492	HLA-DRB1*04:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195718	LTAAFLVVAHYAI	NS4b	2350	2364	HLA-DRB1*07:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195827	PESNILDILRPASA	NS4b	2266	2280	HLA-DRB1*03:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195882	RFWNTTIAVSMANIF	NS4b	2454	2468	HLA-DRB1*07:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195974	SNILDILRPASAWT	NS4b	2155	2169	HLA-DRB1*03:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195980	SQVNPITLTAALLL	NS4b	2343	2357	HLA-DQA1*01:02/DQB1*06:02	Dengue virus 2	ELISPOT	IFNg release	Positive
539327	GLLFSIMKNTTNR	NS4b	2477	2491	HLA-DRB1*14:02	Dengue virus 2	ELISPOT	IFNg release	Positive
539724	NIFRGSYLAGAGLLF	NS4b	2452	2466	HLA-DRB1*09:01	Dengue virus 2	ELISPOT	IFNg release	Positive
539755	PASAWTLVAVATTFV	NS4b	2277	2291	HLA-DRB1*09:01	Dengue virus 2	ELISPOT	IFNg release	Positive
739437	LDIDLRPASAWTLYA	NS4b	2257	2271	HLA-DRB1*01:02	Dengue virus 2	ELISPOT	IFNg release	Positive
866802	FWNTTIAVSMANIF	NS4b	2455	2469	HLA-DQA1*01:02/DQB1*06:02	Dengue virus 2	ELISPOT	IFNg release	Positive
867335	ITLTAALLLIAHYA	NS4b	2348	2362	HLA-DPB1*04:02	Dengue virus 2	ELISPOT	IFNg release	Positive
867709	LILCVTVQLMMRTTW	NS4b	2417	2431	HLA-DPB1*04:02	Dengue virus 2	ELISPOT	IFNg release	Positive
867860	LLVLCVTVQLMMRTT	NS4b	2416	2430	HLA-DPB1*04:02	Dengue virus 2	ELISPOT	IFNg release	Positive
869089	TAIANQATVLMGLGK	NS4b	2309	2323	HLA-DQA1*01:02/DQB1*06:02	Dengue virus 2	ELISPOT	IFNg release	Positive
869090	TAIANQATVLMGLGR	NS4b	2309	2323	HLA-DQA1*01:02/DQB1*06:02	Dengue virus 2	ELISPOT	IFNg release	Positive
1066545	ACLGKSYAQMWLSLMY	NS5	3243	3257	HLA-DRB1*04:01	Dengue virus 2	ELISPOT	IFNg release	Positive-Low
150597	SRAIWYMWVLGARFLE	NS5	2962	2976	HLA-DRB1*01:01	Dengue virus 2	ELISPOT	IFNg release	Positive
167817	SRLNALGKSEFQI	NS5	15	27	HLA class II	Dengue virus 2	ELISPOT	IFNg release	Positive
180579	KSYAQMWLSLMYFHR	NS5	3247	3261	HLA-DRB5*01:01	Dengue virus 2	ELISPOT	IFNg release	Positive
180582	KTWAYHGSYETKQTG	NS5	2792	2806	HLA class II	Dengue virus 2	ICS	IFNg release	Positive
190862	MVTQAMAMDTTTPFGQQR	NS5	2828	2844	HLA class II	Dengue virus 2	ICS	IFNg release	Positive
195111	ACLGKSYAQMWTLMY	NS5	3243	3257	HLA-DRB1*04:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195200	CETCVYNNMMGKREK	NS5	2924	2938	HLA-DRB1*11:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195213	DELIGRARISQAGAW	NS5	3223	3237	HLA-DRB1*08:02	Dengue virus 2	ELISPOT	IFNg release	Positive
195233	EDHWFSRENSLGSVE	NS5	2985	2999	HLA-DRB1*04:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195241	EGEGVFKSIQHLTVT	NS5	3101	3115	HLA-DRB1*07:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195250	ELIMKDGKLVVPCR	NS5	3206	3220	HLA-DRB1*03:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195251	ELIMKDGKLVVPCR	NS5	3206	3220	HLA-DRB1*03:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195380	GKSYAQMWLSLMYFHR	NS5	3232	3246	HLA-DRB1*04:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195384	GLFKSIQHLTSQEEI	NS5	3118	3132	HLA-DRB1*11:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195409	GNIVSSVNMISRMIL	NS5	2717	2731	HLA-DRB1*07:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195428	GTVMIDIISRRDQRGS	NS5	3078	3092	HLA-DRB1*03:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195445	HFHELIMKDGRILVV	NS5	3203	3217	HLA-DRB1*03:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195446	HFHELVMKDGRVLVV	NS5	3203	3217	HLA-DRB1*13:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195460	HRGLYILRDVSRKEG	NS5	3004	3018	HLA-DRB1*08:02	Dengue virus 2	ELISPOT	IFNg release	Positive
195513	IMKDGRKLVVPCRNQ	NS5	3207	3221	HLA-DRB1*03:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195640	LGYLIRDVSKKEGGA	NS5	2992	3006	HLA-DRB1*03:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195642	LHKLGYILRDVSKKE	NS5	3003	3017	HLA-DRB1*08:02	Dengue virus 2	ELISPOT	IFNg release	Positive
195750	MEGEGIFKSIQHLTA	NS5	3114	3128	HLA-DRB1*11:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195759	MLINRFTMKHKKATY	NS5	2729	2743	HLA-DRB1*11:01	Dengue virus 2	ELISPOT	IFNg release	Positive
195800	NMISRMILINRFTMKH	NS5	2724	2738	HLA-DRB1*08:02	Dengue virus 2	ELISPOT	IFNg release	Positive
195801	NMISRMILINRFTMRH	NS5	6	20	HLA-DRB1*08:02	Dengue virus 2	ELISPOT	IFNg release	Positive
195948	SGNIVSSVNMISRMIL	NS5	2716	2730	HLA-DRB1*04:01	Dengue virus 2	ELISPOT	IFNg release	Positive
196040	TGNIVSSVNMISRMIL	NS5	2716	2730	HLA-DRB1*04:01	Dengue virus 2	ELISPOT	IFNg release	Positive
196161	VNMISRMILINRFTMR	NS5	2723	2737	HLA-DRB1*10:01	Dengue virus 2	ELISPOT	IFNg release	Positive
196187	VSSVNMISRMILINRF	NS5	2720	2734	HLA-DRB1*15:01	Dengue virus 2	ELISPOT	IFNg release	Positive

196210	WAKNIQTAINQVRS	NS5	3336	3350	HLA-DRB1*03:01	Dengue virus 2	ELISPOT	IFNg release	Positive
196223	WSLMYFHRRDLRLAA	NS5	3253	3267	HLA-DRB1*03:01	Dengue virus 2	ELISPOT	IFNg release	Positive
196225	WTLMYFHRRDLRLAA	NS5	3253	3267	HLA-DRB1*03:01	Dengue virus 2	ELISPOT	IFNg release	Positive
196243	YQNKVVRVQRPTPRG	NS5	3064	3078	HLA-DRB1*08:02	Dengue virus 2	ELISPOT	IFNg release	Positive
32939	KPWDIIPMV	NS5	2821	2829	HLA class II	Dengue virus 2	ELISA	IL-2 release	Positive
32941	KPWDVLPV	NS5	2821	2829	HLA class II	Dengue virus 2	ELISA	IL-2 release	Positive
32942	KPWDVLPV	NS5	2821	2829	HLA class II	Dengue virus 2	ELISA	IL-2 release	Positive
32943	KPWDVVPV	NS5	2821	2829	HLA class II	Dengue virus 2	ELISA	IL-2 release	Positive
539144	CVVKPLDDRFASALTAL	NS5	3156	3172	HLA class II	Dengue virus 2	ICS	IFNg release	Positive
539150	DDRFASALTALNDMG	NS5	3162	3176	HLA-DRB1*04:03	Dengue virus 2	ELISPOT	IFNg release	Positive
539161	DHWFSRGNSLSGVEG	NS5	2986	3000	HLA-DRB1*09:01	Dengue virus 2	ELISPOT	IFNg release	Positive
539195	EAIFKLTQYQNKVVRV	NS5	3057	3071	HLA-DRB1*09:01	Dengue virus 2	ELISPOT	IFNg release	Positive
539348	GSALKRWFVERNMV	NS5	2549	2563	HLA-DRB1*09:01	Dengue virus 2	ELISPOT	IFNg release	Positive
539436	ISGDDCVVKPLDDRF	NS5	3151	3166	HLA class II	Dengue virus 2	ICS	IFNg release	Positive
539438	ISRMLINRFTMRHKK	NS5	8	22	HLA-DRB1*14:02	Dengue virus 2	ELISPOT	IFNg release	Positive
539560	LGKNEFQIYKSGIQ	NS5	2511	2525	HLA-DRB1*15:02	Dengue virus 2	ELISPOT	IFNg release	Positive
539599	LMYFHRRDLRLAANA	NS5	3255	3269	HLA-DRB1*13:01	Dengue virus 2	ELISPOT	IFNg release	Positive
539603	LNTFTNMEAQLIRQM	NS5	3100	3114	HLA-DRB1*10:01	Dengue virus 2	ELISPOT	IFNg release	Positive
539668	MISRMLINRFTMKHK	NS5	2725	2739	HLA-DRB1*14:04	Dengue virus 2	ELISPOT	IFNg release	Positive
539669	MISRMLINRFTMRHK	NS5	7	21	HLA-DRB1*14:06	Dengue virus 2	ELISPOT	IFNg release	Positive
539871	RRDLRLAANAICSAV	NS5	3260	3274	HLA-DRB3*02:02	Dengue virus 2	ELISPOT	IFNg release	Positive
539932	SRMLINRFTMKHKA	NS5	2727	2741	HLA-DRB1*08:03	Dengue virus 2	ELISPOT	IFNg release	Positive
540064	VNGVVRLLTKPVDVI	NS5	2812	2826	HLA-DRB1*12:02	Dengue virus 2	ELISPOT	IFNg release	Positive
540065	VNGVVRLLTKPVDV	NS5	2812	2826	HLA-DRB1*12:02	Dengue virus 2	ELISPOT	IFNg release	Positive
540066	VNMISRMLINRFTMK	NS5	2723	2737	HLA-DRB1*12:02	Dengue virus 2	ELISPOT	IFNg release	Positive
738754	EEFTRKVRNSAALGA	NS5	2874	2888	HLA-DRB1*11:04	Dengue virus 2	ELISPOT	IFNg release	Positive
739166	IFKLTQYQNKVVRVQR	NS5	3045	3059	HLA-DRB1*14:06	Dengue virus 2	ELISPOT	IFNg release	Positive
739791	NLVRQLSGVDVFFTP	NS5	2599	2613	HLA-DRB1*01:02	Dengue virus 2	ELISPOT	IFNg release	Positive
740675	VRNSAALGAIFTDEN	NS5	2880	2894	HLA-DRB1*11:04	Dengue virus 2	ELISPOT	IFNg release	Positive
866015	AIWYMWLGARFLEFE	NS5	2964	2978	HLA-DPB1*01:01	Dengue virus 2	ELISPOT	IFNg release	Positive
866172	ASGNIVSSVNMISRM	NS5	2715	2729	HLA-DRB3*02:02	Dengue virus 2	ELISPOT	IFNg release	Positive
866566	EKKLAIAIFKLTQYQ	NS5	3051	3065	HLA-DPB1*01:01	Dengue virus 2	ELISPOT	IFNg release	Positive
866648	ETCVYNMMGKREKKL	NS5	2939	2953	HLA-DRB5*01:01	Dengue virus 2	ELISPOT	IFNg release	Positive
867419	KKLAIAIFKLTQYQNK	NS5	3053	3067	HLA-DPB1*02:01	Dengue virus 2	ELISPOT	IFNg release	Positive
867433	KLAIAIFKLTQYQNKV	NS5	3054	3068	HLA-DPB1*02:01	Dengue virus 2	ELISPOT	IFNg release	Positive
867514	KTPVESWEEIPYLGK	NS5	3318	3332	HLA-DQA1*01:01/DQB1*05:01	Dengue virus 2	ELISPOT	IFNg release	Positive
867600	LEFEALGFLNEDHWF	NS5	2975	2989	HLA-DPB1*04:01	Dengue virus 2	ELISPOT	IFNg release	Positive
868637	RDLRLAANAICSAVP	NS5	3261	3275	HLA-DQA1*05:01/DQB1*02:01	Dengue virus 2	ELISPOT	IFNg release	Positive
868640	RFLEFEALGFLNEDH	NS5	2973	2987	HLA-DPB1*01:01	Dengue virus 2	ELISPOT	IFNg release	Positive
868668	RKVRNSAALGAIFTD	NS5	2892	2906	HLA-DRB3*02:02	Dengue virus 2	ELISPOT	IFNg release	Positive
869082	SYAQMWSLMYFHRRD	NS5	3248	3262	HLA-DPB1*04:01	Dengue virus 2	ELISPOT	IFNg release	Positive
869083	SYAQMWTLMYFHRRD	NS5	3248	3262	HLA-DPB1*04:01	Dengue virus 2	ELISPOT	IFNg release	Positive
869148	TFVESWEDIPYLGKR	NS5	3319	3333	HLA-DQA1*01:01/DQB1*05:01	Dengue virus 2	ELISPOT	IFNg release	Positive
869292	TPVESWEEVPYLGKR	NS5	3319	3333	HLA-DQA1*01:01/DQB1*05:01	Dengue virus 2	ELISPOT	IFNg release	Positive
869307	TRKVRNSAALGAIFT	NS5	2891	2905	HLA-DRB3*02:02	Dengue virus 2	ELISPOT	IFNg release	Positive
869426	VESWEEIPYLGKRED	NS5	3321	3335	HLA-DQA1*01:01/DQB1*05:01	Dengue virus 2	ELISPOT	IFNg release	Positive

CD4 DENV-3 Epitopes

Epitope_ID	AminoAcid_Seq	Protein_Name	Start	End	Allele	Serotype	Method/Technique	Assay Group	Qualitative Measure
1068391	TGKPSINMLKRVNR	C	8	22	HLA-DRB1*11:01	Dengue virus 3	ELISPOT	IFNg release	Positive-Low
195205	CLMMMLPATLAFHLT	C	104	118	HLA-DRB1*15:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195289	FCLMMMLPATLAFHL	C	103	117	HLA-DRB1*01:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195303	FKKEISNMLSINKR	C	37	51	HLA-DRB1*04:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195306	FLRFLAIPPTAGVLA	C	6	20	HLA-DRB1*01:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195469	IAFLRFLAIPPTAGV	C	4	18	HLA-DRB1*04:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195497	IKVLKGFKKEISNML	C	31	45	HLA-DRB1*04:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195517	INMLKRVNRNVSTGP	C	13	27	HLA-DRB1*08:02	Dengue virus 3	ELISPOT	IFNg release	Positive
195518	INMLKRVNRNVSTGS	C	13	27	HLA-DRB1*08:02	Dengue virus 3	ELISPOT	IFNg release	Positive
195519	INMLKRVNRNVSTGT	C	13	27	HLA-DRB1*08:02	Dengue virus 3	ELISPOT	IFNg release	Positive
195536	ISNMLSINKRKKT	C	41	55	HLA-DRB1*11:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195559	KEISNMLSINKRK	C	39	53	HLA-DRB1*04:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195597	KTSLCLMMILPAALA	C	53	67	HLA-DRB1*01:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195598	KTSLCLVMILPAALA	C	100	114	HLA-DRB1*01:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195611	LARWGTFKKSGAIKV	C	19	33	HLA-DRB1*07:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195618	LCLMMIMPAAALFHL	C	103	117	HLA-DRB1*01:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195649	LKGFKKEISNLSII	C	34	48	HLA-DRB1*07:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195803	NMLKRVNRNVSTGPQ	C	14	28	HLA-DRB1*11:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195961	SINMLKRVNRNVSTG	C	12	26	HLA-DRB1*08:02	Dengue virus 3	ELISPOT	IFNg release	Positive
195966	SLCLMMIMPAAALFH	C	102	116	HLA-DRB1*08:02	Dengue virus 3	ELISPOT	IFNg release	Positive
195967	SLCLMMMLPATLAFH	C	102	116	HLA-DRB1*08:02	Dengue virus 3	ELISPOT	IFNg release	Positive
36858	LKGFKKEISNML	C	81	92	HLA-DPw4	Dengue virus 3	ICS	IFNg release	Positive
539277	GAIKVLKGFKKEISN	C	29	43	HLA-DRB1*12:02	Dengue virus 3	ELISPOT	IFNg release	Positive
539447	IVNRRKKTSLCLMMM	C	94	108	HLA-DRB1*13:01	Dengue virus 3	ELISPOT	IFNg release	Positive
539502	KPSINMLKRVNRNVS	C	10	24	HLA-DRB1*08:03	Dengue virus 3	ELISPOT	IFNg release	Positive
539512	KSGAIKVLKGFKKEI	C	27	41	HLA-DRB1*12:02	Dengue virus 3	ELISPOT	IFNg release	Positive
539787	PSINMLKRVNRNVST	C	11	25	HLA-DRB1*14:04	Dengue virus 3	ELISPOT	IFNg release	Positive
539897	SGAIKVLKGFKKEIS	C	28	42	HLA-DRB1*14:04	Dengue virus 3	ELISPOT	IFNg release	Positive
539906	SIINRRKRTSLCLMM	C	93	107	HLA-DRB1*13:01	Dengue virus 3	ELISPOT	IFNg release	Positive
539926	SNMLSINKRKKTSL	C	42	56	HLA-DRB1*12:02	Dengue virus 3	ELISPOT	IFNg release	Positive
540118	WGSFKKSGAVKVLRG	C	69	83	HLA-DRB1*09:01	Dengue virus 3	ELISPOT	IFNg release	Positive
540119	WGTFKKLGAIKVLKG	C	69	83	HLA-DRB1*09:01	Dengue virus 3	ELISPOT	IFNg release	Positive
540120	WGTFKKLGAIKVLRG	C	69	83	HLA-DRB1*09:01	Dengue virus 3	ELISPOT	IFNg release	Positive
540121	WGTFKKSGAIKVLKG	C	22	36	HLA-DRB1*09:01	Dengue virus 3	ELISPOT	IFNg release	Positive
540122	WGTFKKSGAIKVLKS	C	69	83	HLA-DRB1*09:01	Dengue virus 3	ELISPOT	IFNg release	Positive
540123	WGTFKKSGAIKVLRG	C	69	83	HLA-DRB1*09:01	Dengue virus 3	ELISPOT	IFNg release	Positive
540124	WGTFKKSGAIRVLRG	C	69	83	HLA-DRB1*09:01	Dengue virus 3	ELISPOT	IFNg release	Positive
591709	LRGFKKEISNLSII	C	81	95	HLA-DRB1*13:02	Dengue virus 3	ELISPOT	IFNg release	Positive
591723	NMLSINKRKKTSLC	C	90	104	HLA-DRB1*11:01	Dengue virus 3	ELISPOT	IFNg release	Positive
591746	RGFKKEISNLSIIN	C	82	96	HLA-DRB1*04:01	Dengue virus 3	ELISPOT	IFNg release	Positive
738443	AFLRFLAIPPTAGVL	C	52	66	HLA-DRB1*04:07	Dengue virus 3	ELISPOT	IFNg release	Positive
740207	RWGTFKKSGAIKVLK	C	68	82	HLA-DRB1*14:02	Dengue virus 3	ELISPOT	IFNg release	Positive
867744	LKSFKKEISNLSI	C	81	95	HLA-DRB3*02:02	Dengue virus 3	ELISPOT	IFNg release	Positive
867909	LRGFKKEISNLSII	C	64	78	HLA-DRB3*02:02	Dengue virus 3	ELISPOT	IFNg release	Positive
868645	RGLLNGQGPMLLVMA	C	15	29	HLA-DRB3*02:02	Dengue virus 3	ELISPOT	IFNg release	Positive
868733	RWGTFKKSGAIKVLR	C	48	62	HLA-DRB3*02:02	Dengue virus 3	ELISPOT	IFNg release	Positive
195602	KVVIFILLMLVTPSM	PreM	265	279	HLA-DRB1*01:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195726	LTQKVIFILLMLVT	PreM	262	276	HLA-DRB1*11:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195830	PGFTILALFLAHYIG	PreM	245	259	HLA-DRB1*15:06	Dengue virus 3	ELISPOT	IFNg release	Positive
195968	SLIQKVIFILLMLV	PreM	261	275	HLA-DRB1*15:06	Dengue virus 3	ELISPOT	IFNg release	Positive
196067	TQKVIFILLMLVTP	PreM	263	277	HLA-DRB1*15:06	Dengue virus 3	ELISPOT	IFNg release	Positive
196203	VVIFILLMLVTPSMT	PreM	266	280	HLA-DRB1*07:01	Dengue virus 3	ELISPOT	IFNg release	Positive
539529	KVVIFILLVTPSM	PreM	265	279	HLA-DRB1*15:06	Dengue virus 3	ELISPOT	IFNg release	Positive
539808	QKVIFILLMLVTPS	PreM	264	278	HLA-DRB1*15:06	Dengue virus 3	ELISPOT	IFNg release	Positive
540004	TSLTQKVIFILLML	PreM	260	274	HLA-DPB1*04:02	Dengue virus 3	ELISPOT	IFNg release	Positive
867082	HPGFTILALFLAHYI	PreM	244	258	HLA-DPB1*02:01	Dengue virus 3	ELISPOT	IFNg release	Positive
869302	TQKVIFILLMLVTP	PreM	263	277	HLA-DPB1*04:02	Dengue virus 3	ELISPOT	IFNg release	Positive
119134	EGKVQYENLKVTYI	E	126	140	HLA-DR2	Dengue virus 3	ELISPOT	IFNg release	Positive
119289	NGRLITANPVVTKEE	E	626	640	HLA-DRB1*08:02	Dengue virus 3	ELISPOT	IFNg release	Positive
119327	RKELLVTFKNAHAK	E	231	245	HLA-DR2	Dengue virus 3	ELISPOT	IFNg release	Positive
13376	EMILLTMKNKAWMHV	E	473	487	HLA-DRB1*13:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195215	DFNEMILLTMKNKAW	E	470	484	HLA-DRB1*14:04	Dengue virus 3	ELISPOT	IFNg release	Positive
195252	ELLVTFKNAHAKQGE	E	513	527	HLA-DRB1*04:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195341	FVLKKEVSETQHG	E	584	598	HLA-DRB1*04:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195365	GHLKRLKMDKLELK	E	559	573	HLA-DRB1*03:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195416	GRILITANPVVTKEE	E	627	641	HLA-DRB1*08:02	Dengue virus 3	ELISPOT	IFNg release	Positive
195813	NRKELLVTFKNAHAK	E	510	524	HLA-DRB1*04:01	Dengue virus 3	ELISPOT	IFNg release	Positive
196033	TFVLKKEVSETQHG	E	583	597	HLA-DRB1*04:01	Dengue virus 3	ELISPOT	IFNg release	Positive
196170	VQHENLKVTYITVH	E	130	144	HLA-DRB1*07:01	Dengue virus 3	ELISPOT	IFNg release	Positive
196172	VQYENLKVTYITVH	E	410	424	HLA-DRB1*07:01	Dengue virus 3	ELISPOT	IFNg release	Positive
539400	IEGKVQYENLKTYV	E	405	419	HLA-DRB1*15:02	Dengue virus 3	ELISPOT	IFNg release	Positive
539460	KELLVTFKNAHAKQ	E	512	526	HLA-DRB1*08:03	Dengue virus 3	ELISPOT	IFNg release	Positive
539476	KELLVTFKNAHAK	E	511	525	HLA-DRB1*14:04	Dengue virus 3	ELISPOT	IFNg release	Positive
539559	LGMVHVQIFGSAYTA	E	710	724	HLA-DRB1*04:03	Dengue virus 3	ELISPOT	IFNg release	Positive
539710	NEMILLTMKNKAWMV	E	472	486	HLA-DRB1*04:03	Dengue virus 3	ELISPOT	IFNg release	Positive
539856	RKELLTTFKNAHAK	E	511	525	HLA-DRB1*04:03	Dengue virus 3	ELISPOT	IFNg release	Positive
591605	AFVLKKEVSETQHG	E	303	317	HLA-DRB1*04:01	Dengue virus 3	ELISPOT	IFNg release	Positive
591719	NEMILLTMKNRAWMV	E	474	488	HLA-DRB1*11:01	Dengue virus 3	ELISPOT	IFNg release	Positive
739011	GGVLSLGKVMHQIF	E	704	718	HLA-DRB1*11:04	Dengue virus 3	ELISPOT	IFNg release	Positive
739041	GMSYAMCTNTFVLK	E	574	588	HLA-DRB1*04:07	Dengue virus 3	ELISPOT	IFNg release	Positive
739344	KMVHVQIFGSAYTALF	E	31	45	HLA-DRB3*02:02	Dengue virus 3	ELISPOT	IFNg release	Positive
740409	SVGGVLSLGKVMHQ	E	702	716	HLA-DRB1*11:04	Dengue virus 3	ELISPOT	IFNg release	Positive
741746	MRCVGVGNRDFVEGLSGATW	E	281	300	HLA class II	Dengue virus 3	ELISPOT	IFNg release	Positive
866574	EIQNSGGTSIFAGHL	E	547	561	HLA-DQA1*01:02/DQB1*06:02	Dengue virus 3	ELISPOT	IFNg release	Positive
867374	KAWIVHRQWFFDLPL	E	482	496	HLA-DQA1*01:01/DQB1*05:01	Dengue virus 3	ELISPOT	IFNg release	Positive
867377	KCRLKMDKLELKGMS	E	562	576	HLA-DRB3*02:02	Dengue virus 3	ELISPOT	IFNg release	Positive
868175	MVHRQWFFDLPLPW	E	485	499	HLA-DQA1*01:01/DQB1*05:01	Dengue virus 3	ELISPOT	IFNg release	Positive
869693	WMVHRQWFFDLPLPW	E	87	101	HLA-DQA1*01:01/DQB1*05:01	Dengue virus 3	ELISPOT	IFNg release	Positive

190705	AKIVTAETQNSSFII	NS1	894	908	HLA-DRB1*04:01	Dengue virus 3	ELISPOT	IFNg release	Positive
190823	KLTVVVGDIIGVLEQ	NS1	85	99	HLA-DR2	Dengue virus 3	ELISPOT	IFNg release	Positive
190825	KQIANELNYILWENN	NS1	69	83	HLA-DR2	Dengue virus 3	ELISPOT	IFNg release	Positive
190996	TEQYKQADSPKRLA	NS1	802	816	HLA-DRB5*01:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195164	ANELNYILWENNIKL	NS1	845	859	HLA-DRB1*03:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195419	GSWKLEKASLIEVK	NS1	981	995	HLA-DRB1*01:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195577	KLTVVVGDTIGVLEQ	NS1	858	872	HLA-DRB1*03:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195692	LNLYLWENNIKLTVV	NS1	848	862	HLA-DRB1*03:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195782	NELNYILWENNIKLT	NS1	846	860	HLA-DRB1*03:01	Dengue virus 3	ELISPOT	IFNg release	Positive
196235	YKFQADSPKRLATAI	NS1	805	819	HLA-DRB1*03:01	Dengue virus 3	ELISPOT	IFNg release	Positive
539070	AKIVTAETRNSSFII	NS1	121	135	HLA-DRB1*13:01	Dengue virus 3	ELISPOT	IFNg release	Positive
539457	KAKIVIAETQNSSFI	NS1	893	907	HLA-DRB1*13:01	Dengue virus 3	ELISPOT	IFNg release	Positive
539717	NGSWKLEKASLIEVK	NS1	980	994	HLA-DRB1*09:01	Dengue virus 3	ELISPOT	IFNg release	Positive
539825	QYKQADSPKRLATA	NS1	804	818	HLA-DRB3*02:02	Dengue virus 3	ELISPOT	IFNg release	Positive
866698	FGVFTTNILWLKRDV	NS1	933	947	HLA-DPB1*04:01	Dengue virus 3	ELISPOT	IFNg release	Positive
866700	FGVFTTNILWLKREV	NS1	933	947	HLA-DPB1*01:01	Dengue virus 3	ELISPOT	IFNg release	Positive
867042	HADMGYWIESQKNGS	NS1	968	982	HLA-DQA1*01:01/DQB1*05:01	Dengue virus 3	ELISPOT	IFNg release	Positive
167810	RENLLGVGLAMATTLQLPE	NS2a	1224	1243	HLA-DP	Dengue virus 3	ELISPOT	IFNg release	Positive
195123	AGVFFTVLLLSGQI	NS2a	1159	1173	HLA-DRB1*07:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195125	AGVIFTFVLLLSGQI	NS2a	1159	1173	HLA-DRB1*07:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195128	AGVLFMFVLLLSGQI	NS2a	1159	1173	HLA-DRB1*07:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195133	AHTFIMIGSNASDRM	NS2a	1179	1193	HLA-DRB1*04:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195134	AHTLIMIGSNASDRM	NS2a	1179	1193	HLA-DRB1*04:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195166	ANTFIMIGSNASDRM	NS2a	1179	1193	HLA-DRB1*04:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195197	AWRTATLILAGVSL	NS2a	1289	1303	HLA-DRB1*01:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195222	DMAHTLIMIGSNASD	NS2a	1177	1191	HLA-DRB1*04:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195335	FTFVLLLSGQITWRD	NS2a	1163	1177	HLA-DRB1*15:02	Dengue virus 3	ELISPOT	IFNg release	Positive
195337	FTLTVAWRTATLILA	NS2a	1284	1298	HLA-DRB1*07:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195342	FVLLLSGQITWRDMA	NS2a	1165	1179	HLA-DRB1*01:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195429	GVFFTFVLLLSGQIT	NS2a	1160	1174	HLA-DRB1*04:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195433	GVLFTFVLLLSGQIT	NS2a	1160	1174	HLA-DRB1*15:06	Dengue virus 3	ELISPOT	IFNg release	Positive
195456	HMIAGILFMFVLLLS	NS2a	1156	1170	HLA-DRB1*11:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195457	HMIAGVFFTFVLLLS	NS2a	1156	1170	HLA-DRB1*11:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195462	HTLIMIGSNASDRMG	NS2a	1180	1194	HLA-DRB1*04:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195481	IFTLTVAWRTATLIL	NS2a	1283	1297	HLA-DRB1*07:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195609	LALGFFLRKLTSREN	NS2a	1212	1226	HLA-DRB1*11:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195630	LFTFVLLLSGQITWR	NS2a	1162	1176	HLA-DRB1*07:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195632	LGFFLRKLTSRENLL	NS2a	1214	1228	HLA-DRB1*11:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195644	LIMIGSNASDRMGMG	NS2a	1182	1196	HLA-DRB1*04:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195645	LISLTCSTNIFTTLTV	NS2a	1274	1288	HLA-DRB1*07:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195729	LTVAWRTATLILAGV	NS2a	1286	1300	HLA-DPB1*04:02	Dengue virus 3	ELISPOT	IFNg release	Positive
195734	LVSLTCSNTILTLTV	NS2a	1274	1288	HLA-DRB1*07:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195740	LWTALVSLTCSNTIF	NS2a	1270	1284	HLA-DRB1*07:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195743	MAHTLIMIGSNASDR	NS2a	1178	1192	HLA-DRB1*04:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195757	MGVTYLALIAFKIQ	NS2a	1195	1209	HLA-DRB1*07:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195819	NTIFTLTVAWRTATL	NS2a	1281	1295	HLA-DRB1*07:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195836	PLFIFSLKDTLKRRS	NS2a	1330	1344	HLA-DRB1*11:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195912	RTATLILAGVSLLPV	NS2a	1291	1305	HLA-DRB1*03:01	Dengue virus 3	ELISPOT	IFNg release	Positive
196123	VGVLFTFVLLLSGQI	NS2a	1159	1173	HLA-DRB1*07:01	Dengue virus 3	ELISPOT	IFNg release	Positive
539075	ALGFFLRKLTSRENLL	NS2a	1213	1227	HLA-DRB1*12:02	Dengue virus 3	ELISPOT	IFNg release	Positive
539370	GVTYLALIAFKIQP	NS2a	1196	1210	HLA-DRB1*10:01	Dengue virus 3	ELISPOT	IFNg release	Positive
539429	IQPFLALGFFLRLKL	NS2a	1208	1222	HLA-DRB1*15:06	Dengue virus 3	ELISPOT	IFNg release	Positive
539568	LIAFKIQPFLALGF	NS2a	1202	1216	HLA-DRB1*15:06	Dengue virus 3	ELISPOT	IFNg release	Positive
539802	QFETYQLWTALVSLT	NS2a	1264	1278	HLA-DRB1*15:02	Dengue virus 3	ELISPOT	IFNg release	Positive
540048	VLFTFVLLLSGQITW	NS2a	1161	1175	HLA-DRB1*09:01	Dengue virus 3	ELISPOT	IFNg release	Positive
540093	VTYLALIAFKIQPF	NS2a	1197	1211	HLA-DRB1*04:03	Dengue virus 3	ELISPOT	IFNg release	Positive
865959	AGALFTFVLLLSGQI	NS2a	1159	1173	HLA-DPB1*04:02	Dengue virus 3	ELISPOT	IFNg release	Positive
867116	IAGVFFTFVLLLSGQ	NS2a	1158	1172	HLA-DPB1*01:01	Dengue virus 3	ELISPOT	IFNg release	Positive
867442	KLITQFETYQLWTAL	NS2a	1260	1274	HLA-DPB1*02:01	Dengue virus 3	ELISPOT	IFNg release	Positive
867551	LALIAFKIQPFLAL	NS2a	1200	1214	HLA-DPB1*04:01	Dengue virus 3	ELISPOT	IFNg release	Positive
867702	LIAFKIQPFLTLGF	NS2a	1202	1216	HLA-DPB1*01:01	Dengue virus 3	ELISPOT	IFNg release	Positive
868046	MALKLITQFETYQLW	NS2a	1257	1271	HLA-DPB1*01:01	Dengue virus 3	ELISPOT	IFNg release	Positive
868109	MIAGVIFTFVLLLSG	NS2a	1157	1171	HLA-DPB1*04:02	Dengue virus 3	ELISPOT	IFNg release	Positive
868303	PFLALGFFLRLKLSR	NS2a	1210	1224	HLA-DPB1*01:01	Dengue virus 3	ELISPOT	IFNg release	Positive
868329	PLPLFIFSLKDTLKR	NS2a	1328	1342	HLA-DPB1*01:01	Dengue virus 3	ELISPOT	IFNg release	Positive
868551	QPFLALGFFLRLKLS	NS2a	1209	1223	HLA-DPB1*02:01	Dengue virus 3	ELISPOT	IFNg release	Positive
869256	TLTVAWRTATLILAG	NS2a	1285	1299	HLA-DPB1*04:02	Dengue virus 3	ELISPOT	IFNg release	Positive
869298	TQFETYQLWTALISL	NS2a	1263	1277	HLA-DPB1*04:02	Dengue virus 3	ELISPOT	IFNg release	Positive
869592	VQPFALGFFLRLKL	NS2a	1208	1222	HLA-DPB1*01:01	Dengue virus 3	ELISPOT	IFNg release	Positive
167823	TMRIKDDTENILTLLKTA	NS2b	83	102	HLA-DRB1*15:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195180	ASSLLRNDVPMAGPL	NS2b	1361	1375	HLA-DRB1*03:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195403	GLVSILASSLLRNDV	NS2b	1355	1369	HLA-DRB1*01:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195789	NILTVLLKTALLIVS	NS2b	1436	1450	HLA-DRB1*01:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195994	SSLLRNDVPMAGPL	NS2b	1362	1376	HLA-DRB1*03:01	Dengue virus 3	ELISPOT	IFNg release	Positive
196152	VMAVGLVSILASSLL	NS2b	1351	1365	HLA-DRB1*07:01	Dengue virus 3	ELISPOT	IFNg release	Positive
539100	AVGLVSILASSLLRN	NS2b	1353	1367	HLA-DRB1*10:01	Dengue virus 3	ELISPOT	IFNg release	Positive
540087	VSGIFPYSIPATLLV	NS2b	1449	1463	HLA-DRB1*09:01	Dengue virus 3	ELISPOT	IFNg release	Positive
739173	IGLVSILASSLLRND	NS2b	1354	1368	HLA-DRB1*11:04	Dengue virus 3	ELISPOT	IFNg release	Positive
1067120	GKVVGLYGNVGVTKN	NS3	1617	1631	HLA-DRB1*15:01	Dengue virus 3	ELISPOT	IFNg release	Positive
150544	RRLRTLILAPTRVVA	NS3	1688	1702	HLA-DRB1*01:01	Dengue virus 3	ELISPOT	IFNg release	Positive
150617	TFTMRLLSPVRPNY	NS3	1738	1752	HLA-DRB1*01:01	Dengue virus 3	ELISPOT	IFNg release	Positive
190307	REIWDLMCHATF	NS3	255	266	HLA-DPA1*01:03/DPB1*02:01	Dengue virus 3	ELISA	IL-2 release	Positive
190710	ANCLRRNGKKVQLS	NS3	1846	1860	HLA-DRB1*13:01	Dengue virus 3	ELISPOT	IFNg release	Positive
190732	EAAAFMTATPPGTA	NS3	1782	1796	HLA-DRB1*04:03	Dengue virus 3	ELISPOT	IFNg release	Positive
190774	GKTVVWFVPSIKAGND	NS3	357	371	HLA-DR2	Dengue virus 3	ELISPOT	IFNg release	Positive
195144	AIVREAIKRLRLTLI	NS3	1680	1694	HLA-DRB1*08:02	Dengue virus 3	ELISPOT	IFNg release	Positive
195243	EGKVVGLYGNGVVTK	NS3	5	19	HLA-DRB1*15:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195297	FHTMWHVTRGAULTY	NS3	1519	1533	HLA-DRB1*07:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195430	GVFHTMWHVTRGAUL	NS3	1517	1531	HLA-DRB1*07:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195898	RLRTLILAPTRVAA	NS3	1689	1703	HLA-DRB1*04:03	Dengue virus 3	ELISPOT	IFNg release	Positive
21420	GNEWITDFVGKTVWF	NS3	31	45	HLA-DRB1*15:01	Dengue virus 3	ICS	IFNg release	Positive

28422	IRYQTATK	NS3	241	249	HLA-DR15	Dengue virus 3	51 chromium	cytotoxicity	Positive
30395	KEGEKKLRPRWLDA	NS3	585	599	HLA class II	Dengue virus 3	ICS	IFNg release	Positive
38401	LPAlVREAIKRRRL	NS3	1678	1692	HLA-DRB3*02:02	Dengue virus 3	ELISPOT	IFNg release	Positive
39	AAAlFMTATPPGTAD	NS3	1783	1797	HLA-DRB1*04:03	Dengue virus 3	ELISPOT	IFNg release	Positive
45670	NREGKVVLGYNGVV	NS3	141	155	HLA-DRB1*15:01	Dengue virus 3	multimer/tetramer	qualitative binding	Positive
49767	PTRVAAEMEEAMKG	NS3	1697	1711	HLA-DRB1*15:01	Dengue virus 3	ICS	IFNg release	Positive
539028	AAIFMTATPPGTADA	NS3	1784	1798	HLA-DRB1*10:01	Dengue virus 3	ELISPOT	IFNg release	Positive
539052	AGKTVWFVPSIKAGN	NS3	1829	1843	HLA-DRB1*08:03	Dengue virus 3	ELISPOT	IFNg release	Positive
539432	IREAIKRRRLTLILA	NS3	1682	1696	HLA-DRB1*08:03	Dengue virus 3	ELISPOT	IFNg release	Positive
539578	LKGLPIRYQTATKS	NS3	1709	1723	HLA-DRB1*13:01	Dengue virus 3	ELISPOT	IFNg release	Positive
539607	LPiRYQTATKSEHT	NS3	1712	1726	HLA-DRB1*13:01	Dengue virus 3	ELISPOT	IFNg release	Positive
539714	NGKKVIQLSRKTFDT	NS3	1852	1866	HLA-DRB1*12:02	Dengue virus 3	ELISPOT	IFNg release	Positive
539777	PKNFQTMPIGIFTT	NS3	1579	1593	HLA-DRB1*04:03	Dengue virus 3	ELISPOT	IFNg release	Positive
539838	REAIKRRRLTLILA	NS3	1683	1697	HLA-DRB1*14:04	Dengue virus 3	ELISPOT	IFNg release	Positive
539844	REGKVVLGYNGVVV	NS3	1615	1629	HLA-DRB1*01:02	Dengue virus 3	ELISPOT	IFNg release	Positive
539991	TMRLSPVRVPNNYL	NS3	1740	1754	HLA-DRB1*13:01	Dengue virus 3	ELISPOT	IFNg release	Positive
540037	VGKTVWFVPSIKAGN	NS3	1829	1843	HLA-DRB1*08:03	Dengue virus 3	ELISPOT	IFNg release	Positive
540039	VGLYNGVSVTKNGGY	NS3	9	23	HLA-DRB1*15:06	Dengue virus 3	ELISPOT	IFNg release	Positive
54455	RKYLPAIVRE	NS3	202	211	HLA-DR15	Dengue virus 3	51 chromium	cytotoxicity	Positive
55024	RNLTIMDLHPGSGKT	NS3	187	201	HLA class II	Dengue virus 3	ICS	IFNg release	Positive
66127	TRVAAEMEEA	NS3	225	235	HLA-DR15	Dengue virus 3	51 chromium	cytotoxicity	Positive
68015	VDLMCHATFT	NS3	258	267	HLA-DPw2	Dengue virus 3	51 chromium	cytotoxicity	Positive
70708	VREAIKRRRLTLILA	NS3	1682	1696	HLA-DRB1*12:02	Dengue virus 3	ELISPOT	IFNg release	Positive
72654	WITDFVGKTVW	NS3	1824	1834	HLA-DR15	Dengue virus 3	51 chromium	cytotoxicity	Positive
866771	FQITTGEIGAALDF	NS3	1589	1603	HLA-DQA1*03:01/DQB1*03:02	Dengue virus 3	ELISPOT	IFNg release	Positive
867106	HTMWHVTRGAVLTYN	NS3	1520	1534	HLA-DQA1*05:01/DQB1*02:01	Dengue virus 3	ELISPOT	IFNg release	Positive
867358	IVREAIKRRRLTLIL	NS3	1681	1695	HLA-DRB3*02:02	Dengue virus 3	ELISPOT	IFNg release	Positive
867534	KYLPAlVREAIKRRRL	NS3	1676	1690	HLA-DRB4*01:01	Dengue virus 3	ELISPOT	IFNg release	Positive
867875	LNDWDFVTTDISEM	NS3	1873	1887	HLA-DQA1*03:01/DQB1*03:02	Dengue virus 3	ELISPOT	IFNg release	Positive
869278	TMWHVTRGAVLTHNG	NS3	1521	1535	HLA-DQA1*05:01/DQB1*02:01	Dengue virus 3	ELISPOT	IFNg release	Positive
869689	WHVTRGAVLTYNGKR	NS3	1523	1537	HLA-DQA1*05:01/DQB1*02:01	Dengue virus 3	ELISPOT	IFNg release	Positive
167755	IAlDLVTEIGRPVSHLAHRT	NS4a	2	21	HLA class II	Dengue virus 3	ELISPOT	IFNg release	Positive
195199	AYVVIGILTLAAIVA	NS4a	2227	2241	HLA-DRB1*01:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195522	IPLQWIASAIVLEFF	NS4a	2192	2206	HLA-DRB1*01:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195742	MADVPQLQWIASAIVL	NS4a	2189	2203	HLA-DRB1*07:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195828	PETMETLLLLGLML	NS4a	2141	2155	HLA-DRB1*15:06	Dengue virus 3	ELISPOT	IFNg release	Positive
196056	TLLLLGLMILLTGGA	NS4a	2146	2160	HLA-DRB1*15:06	Dengue virus 3	ELISPOT	IFNg release	Positive
196168	VPLQWIASAIVLEFF	NS4a	2192	2206	HLA-DRB1*01:01	Dengue virus 3	ELISPOT	IFNg release	Positive
539900	SGMLWMADVPLQWIA	NS4a	2184	2198	HLA-DRB1*04:03	Dengue virus 3	ELISPOT	IFNg release	Positive
739020	GIGKTSJGLICIVS	NS4a	2169	2183	HLA-DRB1*11:04	Dengue virus 3	ELISPOT	IFNg release	Positive
739464	LFLISGKGIGKTSIG	NS4a	2162	2176	HLA-DRB1*01:02	Dengue virus 3	ELISPOT	IFNg release	Positive
869474	VIGILTAAIIAANE	NS4a	2230	2244	HLA-DQA1*01:02/DQB1*06:02	Dengue virus 3	ELISPOT	IFNg release	Positive
195346	GAGLAFSIMGVSVGTG	NS4b	2474	2488	HLA-DRB1*04:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195607	LAFSIMKSVGTGKRG	NS4b	2477	2491	HLA-DRB1*04:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195617	LCAVQLLLMRTSWAL	NS4b	2418	2432	HLA-DRB1*15:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195624	LDPIVYDSKFEKQLG	NS4b	2397	2411	HLA-DRB1*03:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195663	LLLITHYAIIGPGLQ	NS4b	2354	2368	HLA-DRB1*07:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195664	LLLMTSWSALCEALT	NS4b	2423	2437	HLA-DRB1*04:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195807	NPLTLTAAILLLITH	NS4b	2345	2359	HLA-DRB1*07:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195871	QVMMLLVLCVQLLLM	NS4b	2412	2426	HLA-DRB1*01:01	Dengue virus 3	ELISPOT	IFNg release	Positive
196023	TAAVLLLITHYAIIG	NS4b	2350	2364	HLA-DRB1*15:01	Dengue virus 3	ELISPOT	IFNg release	Positive
196137	VLCAVQLLLMRTSWA	NS4b	2417	2431	HLA-DRB1*12:02	Dengue virus 3	ELISPOT	IFNg release	Positive
196155	VMLLVLCVQLLLMR	NS4b	2413	2427	HLA-DRB1*03:01	Dengue virus 3	ELISPOT	IFNg release	Positive
196163	VNPLTLTAAVLLLIT	NS4b	2344	2358	HLA-DRB1*01:01	Dengue virus 3	ELISPOT	IFNg release	Positive
738453	AGLAFSIMGVSVGTGK	NS4b	2475	2489	HLA-DRB1*04:07	Dengue virus 3	ELISPOT	IFNg release	Positive
867986	LTLTAAVLLLATHYA	NS4b	2347	2361	HLA-DQA1*01:02/DQB1*06:02	Dengue virus 3	ELISPOT	IFNg release	Positive
868878	SLAAIANQAVVLMGL	NS4b	2306	2320	HLA-DQA1*01:02/DQB1*06:02	Dengue virus 3	ELISPOT	IFNg release	Positive
869526	VLLLVTHYAIIGPGL	NS4b	2353	2367	HLA-DPB1*02:01	Dengue virus 3	ELISPOT	IFNg release	Positive
167753	HVNAEPETPNMDVIGERIKR	NS5	263	282	HLA class II	Dengue virus 3	ELISPOT	IFNg release	Positive
167769	KKLNQLSRKEFDL	NS5	15	27	HLA-DP	Dengue virus 3	ELISPOT	IFNg release	Positive
195136	AlFKLTYQNKVVVKVQ	NS5	3056	3070	HLA-DRB1*09:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195204	CLGKAYAQMWSLMYF	NS5	3243	3257	HLA-DRB1*04:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195273	ETKGVRLKRMAISG	NS5	3138	3152	HLA-DRB1*11:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195382	GKVRKDIPOWQPSKG	NS5	3175	3189	HLA-DRB1*03:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195408	GNIVASVNMVSRLL	NS5	3	17	HLA-DRB1*03:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195410	GNIVSSVNMVSRLLL	NS5	2715	2729	HLA-DRB1*03:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195437	GYLRDISKIPGGAM	NS5	43	57	HLA-DRB1*08:02	Dengue virus 3	ELISPOT	IFNg release	Positive
195568	KHGGMLVRNPLSRNS	NS5	2689	2703	HLA-DRB1*08:02	Dengue virus 3	ELISPOT	IFNg release	Positive
195641	LHKLGYLRLDISKIP	NS5	39	53	HLA-DRB1*03:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195668	LLNRFMTTHRRPTIE	NS5	16	30	HLA-DRB1*11:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195779	NDMGKVRKDKPQWQP	NS5	3172	3186	HLA-DRB1*03:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195780	NEDHWFSDNSYSYGV	NS5	2982	2996	HLA-DRB1*04:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195806	NMVSRLLLNRFMTTH	NS5	2722	2736	HLA-DRB1*08:02	Dengue virus 3	ELISPOT	IFNg release	Positive
195812	NRFMTTHRRPTIEKD	NS5	18	32	HLA-DRB1*11:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195875	RAIWYMWLGAARYLF	NS5	2961	2975	HLA-DRB1*01:01	Dengue virus 3	ELISPOT	IFNg release	Positive
195939	SCVYNMMGKREKILG	NS5	2938	2952	HLA-DRB1*11:01	Dengue virus 3	ELISPOT	IFNg release	Positive
196038	TGNIVASVNMVSRLL	NS5	2	16	HLA-DRB1*04:01	Dengue virus 3	ELISPOT	IFNg release	Positive
196041	TGNIVSSVNMVSRLL	NS5	2714	2728	HLA-DRB1*04:01	Dengue virus 3	ELISPOT	IFNg release	Positive
196162	VNMVSRLLLNRFMTMT	NS5	9	23	HLA-DRB1*11:01	Dengue virus 3	ELISPOT	IFNg release	Positive
196221	WLWRTLGRNKPRLC	NS5	157	171	HLA-DRB1*14:02	Dengue virus 3	ELISPOT	IFNg release	Positive
196222	WNIVKLMSGKDVFLY	NS5	2611	2625	HLA-DRB1*15:01	Dengue virus 3	ELISPOT	IFNg release	Positive
196224	WSLMYFHRRDLRLAS	NS5	3252	3266	HLA-DRB1*03:01	Dengue virus 3	ELISPOT	IFNg release	Positive
196239	YQNKVVKVQRPYTKG	NS5	3062	3076	HLA-DRB1*08:02	Dengue virus 3	ELISPOT	IFNg release	Positive
231420	RYLEFEALGFLNEDH	NS5	2971	2985	HLA-DPB1*04:01	Dengue virus 3	ELISPOT	IFNg release	Positive
32944	KPWDVVPTV	NS5	2819	2827	HLA class II	Dengue virus 3	ELISA	IL-2 release	Positive
539444	IVASVNMVSRLLLN	NS5	2717	2731	HLA-DRB1*12:02	Dengue virus 3	ELISPOT	IFNg release	Positive
539449	IVSSVNMVSRLLLN	NS5	2717	2731	HLA-DRB1*11:04	Dengue virus 3	ELISPOT	IFNg release	Positive
539458	KCGSCVYNMMGKREK	NS5	2935	2949	HLA-DRB1*13:01	Dengue virus 3	ELISPOT	IFNg release	Positive
539600	LMYFHRDLRLASNA	NS5	3254	3268	HLA-DRB1*13:01	Dengue virus 3	ELISPOT	IFNg release	Positive
539604	LNTFTNMEEAQLVRQM	NS5	3098	3112	HLA-DRB1*10:01	Dengue virus 3	ELISPOT	IFNg release	Positive
539704	NAIFKLTLYQNKVVVKV	NS5	3055	3069	HLA-DRB1*09:01	Dengue virus 3	ELISPOT	IFNg release	Positive

539726	NIVASVNMVSRLLLN	NS5	2716	2730	HLA-DRB1*15:06	Dengue virus 3	ELISPOT	IFNg release	Positive
539739	NMEVQLVRQMEGEV	NS5	3103	3117	HLA-DRB1*13:01	Dengue virus 3	ELISPOT	IFNg release	Positive
539831	RATWAQNIPTAIQQV	NS5	3346	3360	HLA-DRB1*09:01	Dengue virus 3	ELISPOT	IFNg release	Positive
539872	RRDLRLASNAICSAV	NS5	3259	3273	HLA-DRB1*04:03	Dengue virus 3	ELISPOT	IFNg release	Positive
539916	SLMYFHRRDLRLASN	NS5	3253	3267	HLA-DRB1*13:01	Dengue virus 3	ELISPOT	IFNg release	Positive
539945	SVNMVSRLLLNRF	NS5	2720	2734	HLA-DRB1*12:02	Dengue virus 3	ELISPOT	IFNg release	Positive
540019	TYGLNTFTNMEAQLV	NS5	3095	3109	HLA-DRB1*04:03	Dengue virus 3	ELISPOT	IFNg release	Positive
540025	VASVNMVSRLLLNRF	NS5	2718	2732	HLA-DRB1*14:04	Dengue virus 3	ELISPOT	IFNg release	Positive
540090	VSSVNMVSRLLLNRF	NS5	2718	2732	HLA-DRB1*14:04	Dengue virus 3	ELISPOT	IFNg release	Positive
540152	YKTWAYHGSYEVKAT	NS5	2789	2803	HLA-DRB1*09:01	Dengue virus 3	ELISPOT	IFNg release	Positive
591602	ACLGKAYAQMWTLMY	NS5	3242	3256	HLA-DRB1*04:01	Dengue virus 3	ELISPOT	IFNg release	Positive
738537	ASVNMVSRLLLNRF	NS5	7	21	HLA-DRB1*14:06	Dengue virus 3	ELISPOT	IFNg release	Positive
738753	EEFLDYMPMSMKRFRK	NS5	3367	3381	HLA-DRB1*14:02	Dengue virus 3	ELISPOT	IFNg release	Positive
738759	EFLDYMPMSMKRFRKE	NS5	3368	3382	HLA-DRB1*14:06	Dengue virus 3	ELISPOT	IFNg release	Positive
738829	ERELHKLKCGSCVY	NS5	2927	2941	HLA-DRB1*11:04	Dengue virus 3	ELISPOT	IFNg release	Positive
740771	YGLNTFTNMEVQLVR	NS5	3096	3110	HLA-DRB1*04:07	Dengue virus 3	ELISPOT	IFNg release	Positive
857703	IWYMWLGARYLEFEA	NS5	2963	2977	HLA-DPB1*04:01	Dengue virus 3	ELISPOT	IFNg release	Positive
866168	ARYLEFEALGFLNED	NS5	2970	2984	HLA-DQA1*03:01/DQB1*03:02	Dengue virus 3	ELISPOT	IFNg release	Positive
867015	GSCVYNMMGKREKRL	NS5	2937	2951	HLA-DRB5*01:01	Dengue virus 3	ELISPOT	IFNg release	Positive
867376	KAYAQMWSLMYFHRR	NS5	3246	3260	HLA-DRB5*01:01	Dengue virus 3	ELISPOT	IFNg release	Positive
868338	PMSTYGVWNIIVKLMSG	NS5	2605	2619	HLA-DQA1*01:01/DQB1*05:01	Dengue virus 3	ELISPOT	IFNg release	Positive
868748	SAKLQWFVERNMVIP	NS5	2549	2563	HLA-DQA1*01:01/DQB1*05:01	Dengue virus 3	ELISPOT	IFNg release	Positive
869489	VKPIDDRFANALLAL	NS5	3157	3171	HLA-DPB1*01:01	Dengue virus 3	ELISPOT	IFNg release	Positive
869705	WYMWLGARYLEFEAL	NS5	2964	2978	HLA-DQA1*05:01/DQB1*02:01	Dengue virus 3	ELISPOT	IFNg release	Positive

CD4 DENV-4 Epitopes

Epitope_ID	AminoAcid_Seq	Protein_Name	Start	End	Allele	Serotype	Method/Technique	Assay Group	Qualitative Measure
1067635	LKRWGQLKKNKAIKI	C	65	79	HLA-DRB1*07:01	Dengue virus 4	ELISPOT	IFNg release	Positive-Low
1068575	VVRPPFNMLKRRNR	C	7	21	HLA-DRB1*11:01	Dengue virus 4	ELISPOT	IFNg release	Positive-Low
17605	FRKEIGRML	C	83	91	HLA-DPw4	Dengue virus 4	51 chromium	cytotoxicity	Positive
195316	FNMLKRRNRVSTPQ	C	12	26	HLA-DRB1*04:01	Dengue virus 4	ELISPOT	IFNg release	Positive
195325	FRKEIGRMLNILNGR	C	19	33	HLA-DRB1*04:01	Dengue virus 4	ELISPOT	IFNg release	Positive
195483	IGFRKEIGRMLNILN	C	81	95	HLA-DRB1*04:01	Dengue virus 4	ELISPOT	IFNg release	Positive
195488	IGRMLNILNRRKRST	C	87	101	HLA-DRB1*14:02	Dengue virus 4	ELISPOT	IFNg release	Positive
195580	KNKAIKILIGFRKEI	C	53	67	HLA-DRB1*15:01	Dengue virus 4	ELISPOT	IFNg release	Positive
195587	KRWGQLKKNKAIKIL	C	46	60	HLA-DRB1*08:03	Dengue virus 4	ELISPOT	IFNg release	Positive
195651	LKKNKAIKILTGFRK	C	51	65	HLA-DRB1*14:04	Dengue virus 4	ELISPOT	IFNg release	Positive
195768	MTLLCLIPTAMAFHL	C	102	116	HLA-DRB1*01:01	Dengue virus 4	ELISPOT	IFNg release	Positive
195900	RMVLAFITFLRVLSI	C	44	58	HLA-DRB1*11:01	Dengue virus 4	ELISPOT	IFNg release	Positive
195922	RWGQLKKTKAIKILT	C	67	81	HLA-DRB1*07:01	Dengue virus 4	ELISPOT	IFNg release	Positive
196065	TPQGLVKRFSSGLFS	C	24	38	HLA-DRB1*15:01	Dengue virus 4	ELISPOT	IFNg release	Positive
196134	VLAFITFLRVLSIPP	C	26	40	HLA-DRB1*04:01	Dengue virus 4	ELISPOT	IFNg release	Positive
36533	LIGFRKEIGRML	C	80	91	HLA-DPw4	Dengue virus 4	ICS	IFNg release	Positive
539044	AFITFLRVLSIPPTA	C	28	42	HLA-DRB1*04:03	Dengue virus 4	ELISPOT	IFNg release	Positive
539255	FITFLRVLSIPPTAG	C	49	63	HLA-DRB1*04:07	Dengue virus 4	ELISPOT	IFNg release	Positive
539294	GFRKEIGRMLNILNG	C	54	68	HLA-DRB3*02:02	Dengue virus 4	ELISPOT	IFNg release	Positive
539496	KNKAIKILTGFRKEI	C	53	67	HLA-DRB1*12:02	Dengue virus 4	ELISPOT	IFNg release	Positive
539536	LAFITFLRVLSIPPT	C	27	41	HLA-DRB1*12:02	Dengue virus 4	ELISPOT	IFNg release	Positive
539571	LIGFRKEIGRMLNIL	C	80	94	HLA-DRB1*09:01	Dengue virus 4	ELISPOT	IFNg release	Positive
539581	LKKNKAIKILIGFRK	C	51	65	HLA-DRB1*14:04	Dengue virus 4	ELISPOT	IFNg release	Positive
539632	LTGFRKEIGRMLNIL	C	52	66	HLA-DRB3*02:02	Dengue virus 4	ELISPOT	IFNg release	Positive
539898	SGKGPLRMVLAFITF	C	18	32	HLA-DRB1*15:06	Dengue virus 4	ELISPOT	IFNg release	Positive
539987	TLLCLIPTVMAFHLS	C	103	117	HLA-DRB1*04:03	Dengue virus 4	ELISPOT	IFNg release	Positive
540116	WGQLKKNKAIKILIG	C	68	82	HLA-DRB1*09:01	Dengue virus 4	ELISPOT	IFNg release	Positive
69367	VLAFITFLR	C	46	54	HLA-DPw4	Dengue virus 4	51 chromium	cytotoxicity	Positive
739059	GRMLNILNGRKRSTI	C	88	102	HLA-DRB1*14:06	Dengue virus 4	ELISPOT	IFNg release	Positive
739060	GRMLNILNGRKRSTM	C	88	102	HLA-DRB1*14:02	Dengue virus 4	ELISPOT	IFNg release	Positive
739175	IGRMLNILNGRKRST	C	87	101	HLA-DRB1*14:02	Dengue virus 4	ELISPOT	IFNg release	Positive
739178	IGRMLNILNRRRRST	C	87	101	HLA-DRB1*14:02	Dengue virus 4	ELISPOT	IFNg release	Positive
740156	RPPFNMLKRRNRVS	C	9	23	HLA-DRB1*14:02	Dengue virus 4	ELISPOT	IFNg release	Positive
868517	QLKKNKAIKILTGFR	C	42	56	HLA-DQA1*01:02/DQB1*06:02	Dengue virus 4	ELISPOT	IFNg release	Positive
868732	RWGQLKKNKAIKILI	C	39	53	HLA-DRB3*02:02	Dengue virus 4	ELISPOT	IFNg release	Positive
195283	FALLAGFMAYMIGQT	PreM	246	260	HLA-DRB1*01:01	Dengue virus 4	ELISPOT	IFNg release	Positive
195505	ILRNPGFALLAGFMA	PreM	240	254	HLA-DRB1*01:01	Dengue virus 4	ELISPOT	IFNg release	Positive
195526	IQRVFFILMMLVAP	PreM	262	276	HLA-DRB1*07:01	Dengue virus 4	ELISPOT	IFNg release	Positive
195901	RNPGFALLAGFMAYM	PreM	242	256	HLA-DRB1*15:01	Dengue virus 4	ELISPOT	IFNg release	Positive
195916	RTVFFVLMMLVAPSY	PreM	264	278	HLA-DRB1*01:01	Dengue virus 4	ELISPOT	IFNg release	Positive
539395	IDCWCNLTSAWVMYG	PreM	117	131	HLA-DQA1*01:02/DQB1*06:02	Dengue virus 4	ELISPOT	IFNg release	Positive
539820	QRTVFFILMMLVAPS	PreM	263	277	HLA-DRB1*13:01	Dengue virus 4	ELISPOT	IFNg release	Positive
867174	IGQTGIQRTVFFILM	PreM	257	271	HLA-DPB1*02:01	Dengue virus 4	ELISPOT	IFNg release	Positive
869119	TEGINCTLIAMDLG	PreM	113	127	HLA-DQA1*01:02/DQB1*06:02	Dengue virus 4	ELISPOT	IFNg release	Positive
869670	WCNLTSTWVMYGTCT	PreM	180	194	HLA-DQA1*01:02/DQB1*06:02	Dengue virus 4	ELISPOT	IFNg release	Positive
167808	RDVNKEKVVGRVISSTPLAE	E	340	359	HLA class II	Dengue virus 4	ELISPOT	IFNg release	Positive
195202	CIAVGGITFLFGFTV	E	758	772	HLA-DRB1*15:01	Dengue virus 4	ELISPOT	IFNg release	Positive
195227	DSYVIGVGNSALT	E	654	668	HLA-DRB1*15:06	Dengue virus 4	ELISPOT	IFNg release	Positive
195272	ESTYRGAKRMAILGE	E	682	696	HLA-DRB1*15:06	Dengue virus 4	ELISPOT	IFNg release	Positive
195358	GGLFTSLGKAVHQVF	E	705	719	HLA-DRB1*11:01	Dengue virus 4	ELISPOT	IFNg release	Positive
195364	GGVSWMIRILIGILV	E	449	463	HLA-DRB1*15:06	Dengue virus 4	ELISPOT	IFNg release	Positive
195434	GVSWMIRILIGFLVL	E	729	743	HLA-DRB1*08:02	Dengue virus 4	ELISPOT	IFNg release	Positive
195435	GVSWMIRILIGLLVL	E	729	743	HLA-DRB1*15:06	Dengue virus 4	ELISPOT	IFNg release	Positive
195436	GVSWMVRILIGFLVL	E	450	464	HLA-DRB1*08:02	Dengue virus 4	ELISPOT	IFNg release	Positive
195472	IAVGGITLFLGFTVH	E	480	494	HLA-DRB1*15:01	Dengue virus 4	ELISPOT	IFNg release	Positive
195473	IAVGGITLFLGFTVQ	E	759	773	HLA-DRB1*15:01	Dengue virus 4	ELISPOT	IFNg release	Positive
195625	LESTYRGAKRMAILG	E	681	695	HLA-DRB1*14:02	Dengue virus 4	ELISPOT	IFNg release	Positive
196036	TGIQRTVFFVLMMLV	E	44	58	HLA-DRB1*07:01	Dengue virus 4	ELISPOT	IFNg release	Positive
196189	VSWIIRILIGLLVLW	E	451	465	HLA-DRB1*15:06	Dengue virus 4	ELISPOT	IFNg release	Positive
539230	EMILMKMKKTWLVH	E	474	488	HLA-DRB1*12:02	Dengue virus 4	ELISPOT	IFNg release	Positive
539298	GGVSWMVRILIGLLV	E	449	463	HLA-DRB1*15:06	Dengue virus 4	ELISPOT	IFNg release	Positive
539379	HAKRQDVTVLGSQEGAMH	E	523	540	HLA class II	Dengue virus 4	ICS	IFNg release	Positive
539463	KERMVTFKVPHPAKRG	E	513	527	HLA-DRB1*04:03	Dengue virus 4	ELISPOT	IFNg release	Positive
539734	NLEYTVVTVHNGDT	E	197	211	HLA-DRB1*04:07	Dengue virus 4	ELISPOT	IFNg release	Positive
540036	VGGLFTSLGKAVHQV	E	704	718	HLA-DRB1*09:01	Dengue virus 4	ELISPOT	IFNg release	Positive
540051	VLGSQEGAMHSALAGA	E	531	546	HLA class II	Dengue virus 4	ICS	IFNg release	Positive
540080	VRILIGFLVLWIGTN	E	455	469	HLA-DRB1*15:06	Dengue virus 4	ELISPOT	IFNg release	Positive
738809	ENLEYTVVTVHNGD	E	196	210	HLA-DRB1*04:07	Dengue virus 4	ELISPOT	IFNg release	Positive
738886	FESTYRGAKRMAILG	E	681	695	HLA-DRB1*14:02	Dengue virus 4	ELISPOT	IFNg release	Positive
741747	MRCVGVGNRDFEVGSGGAW	E	280	299	HLA class II	Dengue virus 4	ELISPOT	IFNg release	Positive
195791	NIMWKQITNELNYVL	NS1	839	853	HLA-DRB1*04:07	Dengue virus 4	ELISPOT	IFNg release	Positive
195822	NVMWKQITNELNYVL	NS1	1	15	HLA-DRB1*04:07	Dengue virus 4	ELISPOT	IFNg release	Positive
539829	QYQFPESPAPLASA	NS1	805	819	HLA-DRB1*09:01	Dengue virus 4	ELISPOT	IFNg release	Positive
866696	FGMFTTNIMWKMFREG	NS1	934	948	HLA-DPB1*04:01	Dengue virus 4	ELISPOT	IFNg release	Positive
867043	HADMGYWIESSKNQT	NS1	969	983	HLA-DQA1*01:01/DQB1*05:01	Dengue virus 4	ELISPOT	IFNg release	Positive
167725	AMITTLTSLPHDLMELIDGIS	NS2a	50	69	HLA class II	Dengue virus 4	ELISPOT	IFNg release	Positive
195156	ALSLTFTIRSTMPLVM	NS2a	1274	1288	HLA-DRB1*07:01	Dengue virus 4	ELISPOT	IFNg release	Positive
195157	ALSLTFTIRSTMSLVM	NS2a	1274	1288	HLA-DRB1*04:01	Dengue virus 4	ELISPOT	IFNg release	Positive
195158	ALSLTFTIRSTTPLVM	NS2a	1274	1288	HLA-DRB1*07:01	Dengue virus 4	ELISPOT	IFNg release	Positive
195190	AVFKMSPGVVLGVFL	NS2a	1204	1218	HLA-DRB1*01:01	Dengue virus 4	ELISPOT	IFNg release	Positive
195220	DLMEFDIGISLGLIL	NS2a	1244	1258	HLA-DRB1*07:01	Dengue virus 4	ELISPOT	IFNg release	Positive
195221	DLMELISGISLGLIL	NS2a	1243	1257	HLA-DRB1*07:01	Dengue virus 4	ELISPOT	IFNg release	Positive
195541	ITALILGAQALPVYL	NS2a	1320	1334	HLA-DRB1*01:01	Dengue virus 4	ELISPOT	IFNg release	Positive
195571	KHMLLVVVTTLCAII	NS2a	1156	1170	HLA-DRB1*08:02	Dengue virus 4	ELISPOT	IFNg release	Positive
195608	LAIMAVFKMSPGVYL	NS2a	1200	1214	HLA-DRB1*13:01	Dengue virus 4	ELISPOT	IFNg release	Positive

195699	LQKQSHWVEITALIL	NS2a	1311	1325	HLA-DRB1*07:01	Dengue virus 4	ELISPOT	IFNg release	Positive
195746	MAVFKMSPGYLVGVF	NS2a	1203	1217	HLA-DRB1*07:01	Dengue virus 4	ELISPOT	IFNg release	Positive
195837	PLVMAWRTIMAVLFV	NS2a	1285	1299	HLA-DRB1*01:01	Dengue virus 4	ELISPOT	IFNg release	Positive
195864	QSHWVEITALILGAQ	NS2a	1314	1328	HLA-DRB1*07:01	Dengue virus 4	ELISPOT	IFNg release	Positive
196060	TQPLVMAWRTIMAVL	NS2a	1283	1297	HLA-DRB1*03:01	Dengue virus 4	ELISPOT	IFNg release	Positive
196061	TMSLVMAWRTIMAVL	NS2a	1283	1297	HLA-DRB1*03:01	Dengue virus 4	ELISPOT	IFNg release	Positive
196070	TRKHMILAVVITLCA	NS2a	1154	1168	HLA-DRB1*08:02	Dengue virus 4	ELISPOT	IFNg release	Positive
196227	VWEITALILGAQALP	NS2a	1317	1331	HLA-DRB1*01:01	Dengue virus 4	ELISPOT	IFNg release	Positive
196252	YVLGIFLRKLTSTRET	NS2a	1212	1226	HLA-DRB1*11:01	Dengue virus 4	ELISPOT	IFNg release	Positive
196253	YVLGVFLRKLTSTRET	NS2a	1212	1226	HLA-DRB1*11:01	Dengue virus 4	ELISPOT	IFNg release	Positive
539130	CLRRRVTRKHMILAV	NS2a	1148	1162	HLA-DRB1*08:03	Dengue virus 4	ELISPOT	IFNg release	Positive
539131	CLRRRVTRKHMILVV	NS2a	1148	1162	HLA-DRB1*08:03	Dengue virus 4	ELISPOT	IFNg release	Positive
539198	ECLRRRVTRKHMILA	NS2a	1147	1161	HLA-DRB1*13:01	Dengue virus 4	ELISPOT	IFNg release	Positive
539360	GVFLRKLTSTRETALM	NS2a	1215	1229	HLA-DRB1*10:01	Dengue virus 4	ELISPOT	IFNg release	Positive
539406	IGGQIHLMIAVFKM	NS2a	1194	1208	HLA-DRB1*13:01	Dengue virus 4	ELISPOT	IFNg release	Positive
539407	IGGQTHLMIAVFKM	NS2a	1194	1208	HLA-DRB1*13:01	Dengue virus 4	ELISPOT	IFNg release	Positive
539433	IRSTMPLVMMAVRTIM	NS2a	1280	1294	HLA-DRB1*13:01	Dengue virus 4	ELISPOT	IFNg release	Positive
539434	IRSTMSLVMAVRTIM	NS2a	1280	1294	HLA-DRB1*13:01	Dengue virus 4	ELISPOT	IFNg release	Positive
539555	LGIFLRKLTSTRETAL	NS2a	1214	1228	HLA-DRB1*08:03	Dengue virus 4	ELISPOT	IFNg release	Positive
539565	LGIVFLRKLTSTRETAL	NS2a	1214	1228	HLA-DRB1*08:03	Dengue virus 4	ELISPOT	IFNg release	Positive
539627	LSLTFIRSTMPLVMA	NS2a	1275	1289	HLA-DRB1*10:01	Dengue virus 4	ELISPOT	IFNg release	Positive
539628	LSLTFIRSTPLVMA	NS2a	1275	1289	HLA-DRB1*08:03	Dengue virus 4	ELISPOT	IFNg release	Positive
539664	MGGQIHLMIAVFKM	NS2a	1194	1208	HLA-DRB1*13:01	Dengue virus 4	ELISPOT	IFNg release	Positive
539687	MPLVMAWRTIMAVLF	NS2a	1284	1298	HLA-DRB1*12:02	Dengue virus 4	ELISPOT	IFNg release	Positive
539919	SLTFIRSTMPLVMAW	NS2a	1276	1290	HLA-DRB1*09:01	Dengue virus 4	ELISPOT	IFNg release	Positive
539921	SLTFIRSTPLIMAW	NS2a	1276	1290	HLA-DRB1*04:03	Dengue virus 4	ELISPOT	IFNg release	Positive
539930	SRETALMVIGMAMTT	NS2a	1223	1237	HLA-DRB1*15:06	Dengue virus 4	ELISPOT	IFNg release	Positive
539937	STMPLVMAWRTIMAV	NS2a	1282	1296	HLA-DRB1*13:01	Dengue virus 4	ELISPOT	IFNg release	Positive
539961	TALMVIGMAMTTLS	NS2a	1226	1240	HLA-DRB1*01:02	Dengue virus 4	ELISPOT	IFNg release	Positive
539962	TALMVIGMAMTTVLS	NS2a	1226	1240	HLA-DRB1*15:06	Dengue virus 4	ELISPOT	IFNg release	Positive
540033	VFKMSPGYLVGVFLR	NS2a	1205	1219	HLA-DRB1*09:01	Dengue virus 4	ELISPOT	IFNg release	Positive
540053	LVGVFLRKLTSTRETA	NS2a	1213	1227	HLA-DRB1*14:04	Dengue virus 4	ELISPOT	IFNg release	Positive
738559	AVVITLCAILGGTL	NS2a	1161	1175	HLA-DRB1*01:02	Dengue virus 4	ELISPOT	IFNg release	Positive
738742	ECLRRRVTRKHMILV	NS2a	1147	1161	HLA-DRB1*14:02	Dengue virus 4	ELISPOT	IFNg release	Positive
740701	VVTLPICRSTCLQK	NS2a	1299	1313	HLA-DRB1*11:04	Dengue virus 4	ELISPOT	IFNg release	Positive
867048	HDLMEFDIGISLGLI	NS2a	1243	1257	HLA-DQA1*01:01/DQB1*05:01	Dengue virus 4	ELISPOT	IFNg release	Positive
867110	HWVEITALILGAQAL	NS2a	1316	1330	HLA-DQA1*03:01/DQB1*03:02	Dengue virus 4	ELISPOT	IFNg release	Positive
867874	LMVIGMAMTTVLSIP	NS2a	1228	1242	HLA-DQA1*01:02/DQB1*06:02	Dengue virus 4	ELISPOT	IFNg release	Positive
867969	LTFIRSTPLVMAWR	NS2a	1277	1291	HLA-DRB3*02:02	Dengue virus 4	ELISPOT	IFNg release	Positive
195404	GLVSLGSAKLNNDV	NS2b	9	23	HLA-DRB1*01:02	Dengue virus 4	ELISPOT	IFNg release	Positive
195511	IMAVGLVSLGSAALL	NS2b	1352	1366	HLA-DRB1*01:01	Dengue virus 4	ELISPOT	IFNg release	Positive
195662	LLLAAYVMSSGSSADL	NS2b	1381	1395	HLA-DRB1*04:01	Dengue virus 4	ELISPOT	IFNg release	Positive
195748	MAVGLVSLGSAALLK	NS2b	1353	1367	HLA-DRB1*01:01	Dengue virus 4	ELISPOT	IFNg release	Positive
195931	SALKKNDVPLAGPMV	NS2b	1363	1377	HLA-DRB1*03:01	Dengue virus 4	ELISPOT	IFNg release	Positive
196062	TNMITLLVKLALITV	NS2b	1436	1450	HLA-DRB1*08:02	Dengue virus 4	ELISPOT	IFNg release	Positive
539101	AVGLVSLGSAALLKN	NS2b	1354	1368	HLA-DRB1*10:01	Dengue virus 4	ELISPOT	IFNg release	Positive
869635	VTMTLVWYMWQVKTQR	NS2b	1460	1474	HLA-DPB1*01:01	Dengue virus 4	ELISPOT	IFNg release	Positive
1067119	GKGVILGYNGVVTKS	NS3	1618	1632	HLA-DRB1*15:01	Dengue virus 4	ELISPOT	IFNg release	Positive
12605	EIVDLMCHAT	NS3	255	264	HLA-DPW2	Dengue virus 4	51 chromium	cytotoxicity	Positive
1392192	GREIVDLMCHATFTT	NS3	1727	1741		Dengue virus 4	biological activity	activation	Positive
156711	LAPTRVVAAMEEAL	NS3	1695	1709	HLA class II	Dengue virus 4	51 chromium	cytotoxicity	Positive
195244	EGVYRIMQRGLFGKT	NS3	1494	1508	HLA-DRB1*11:01	Dengue virus 4	ELISPOT	IFNg release	Positive
195298	FHTMWHVTRGSVICH	NS3	1520	1534	HLA-DRB1*07:01	Dengue virus 4	ELISPOT	IFNg release	Positive
195353	GEIGAVTLDFKPGTS	NS3	1595	1609	HLA-DRB1*03:01	Dengue virus 4	ELISPOT	IFNg release	Positive
195563	KGKVIGLYNGGVVTK	NS3	5	19	HLA-DRB1*15:01	Dengue virus 4	ELISPOT	IFNg release	Positive
195695	LPVWLSYKVASAGIS	NS3	2016	2030	HLA-DRB1*08:02	Dengue virus 4	ELISPOT	IFNg release	Positive
195838	PNYNLIVMDEAHFTD	NS3	1750	1764	HLA-DRB1*03:01	Dengue virus 4	ELISPOT	IFNg release	Positive
195962	SIVREALKRRLRTL	NS3	1680	1694	HLA-DRB1*11:01	Dengue virus 4	ELISPOT	IFNg release	Positive
196032	TEGVYRIMQRGLFGK	NS3	146	160	HLA-DRB1*11:01	Dengue virus 4	ELISPOT	IFNg release	Positive
33192	KRLTIMDLHPGAGKT	NS3	186	200	HLA class II	Dengue virus 4	ICS	IFNg release	Positive
45689	NRKGKIVGLYNGGVV	NS3	141	155	HLA-DRB1*15:01	Dengue virus 4	ICS	IFNg release	Positive
53505	REGKKKLRRPWLDR	NS3	585	599	HLA class II	Dengue virus 4	ICS	IFNg release	Positive
539020	AAAFMTATPPGATD	NS3	1783	1797	HLA-DRB1*10:01	Dengue virus 4	ELISPOT	IFNg release	Positive
539021	AAAFMTATPPGSID	NS3	1783	1797	HLA-DRB1*04:07	Dengue virus 4	ELISPOT	IFNg release	Positive
539023	AAAFMTATPPGTID	NS3	1783	1797	HLA-DRB1*04:03	Dengue virus 4	ELISPOT	IFNg release	Positive
539024	AAAFMTATPPGTID	NS3	1783	1797	HLA-DRB1*04:03	Dengue virus 4	ELISPOT	IFNg release	Positive
539026	AAAFMTATPPGATDP	NS3	1784	1798	HLA-DRB1*09:01	Dengue virus 4	ELISPOT	IFNg release	Positive
539080	ALRGLPIRYQTPAVK	NS3	96	110	HLA-DRB1*13:01	Dengue virus 4	ELISPOT	IFNg release	Positive
539359	GVFHTMWHVTRGSVI	NS3	1518	1532	HLA-DRB1*08:03	Dengue virus 4	ELISPOT	IFNg release	Positive
539520	KVIGLYNGGVVTKSG	NS3	7	21	HLA-DRB1*15:06	Dengue virus 4	ELISPOT	IFNg release	Positive
539547	LFKTLTGEIHAVTLD	NS3	1589	1603	HLA-DRB1*10:01	Dengue virus 4	ELISPOT	IFNg release	Positive
539767	PGLFKTLTGEIAVAT	NS3	1587	1601	HLA-DRB1*10:01	Dengue virus 4	ELISPOT	IFNg release	Positive
539803	QGKTVMFVPSIKAGN	NS3	1829	1843	HLA-DRB1*08:03	Dengue virus 4	ELISPOT	IFNg release	Positive
539859	RKSGKKVIQLSRKTF	NS3	1850	1864	HLA-DRB1*08:03	Dengue virus 4	ELISPOT	IFNg release	Positive
539899	SGKKVIQLSRKTFDT	NS3	1852	1866	HLA-DRB1*12:02	Dengue virus 4	ELISPOT	IFNg release	Positive
540077	VREAKRRLRTL VLA	NS3	1682	1696	HLA-DRB1*08:03	Dengue virus 4	ELISPOT	IFNg release	Positive
68977	VIGLYNGGV	NS3	146	154	HLA-DRB1*15:01	Dengue virus 4	51 chromium	cytotoxicity	Positive
739036	GLPIRYQTPAVKSEH	NS3	1711	1725	HLA-DRB1*14:06	Dengue virus 4	ELISPOT	IFNg release	Positive
739563	LRGLPIRYQTPAVKS	NS3	1709	1723	HLA-DRB1*14:06	Dengue virus 4	ELISPOT	IFNg release	Positive
863140	TRVEMGEAAIFMTA	NS3	1776	1790	HLA-DQA1*03:01/DQB1*03:02	Dengue virus 4	ELISPOT	IFNg release	Positive
867453	KLTDWDFVVTDISE	NS3	1872	1886	HLA-DQA1*03:01/DQB1*03:02	Dengue virus 4	ELISPOT	IFNg release	Positive
868371	PRWLDARVYADPMAL	NS3	2067	2081	HLA-DQA1*03:01/DQB1*03:02	Dengue virus 4	ELISPOT	IFNg release	Positive
167758	ILTEIASLPTLSSRAKL	NS4a	6	23	HLA-DP	Dengue virus 4	ELISPOT	IFNg release	Positive
195176	ASLPTLSSRAKLAL	NS4a	2103	2117	HLA-DRB1*07:01	Dengue virus 4	ELISPOT	IFNg release	Positive
195224	DNQLIYVILTITII	NS4a	2223	2237	HLA-DRB1*15:01	Dengue virus 4	ELISPOT	IFNg release	Positive
195274	ETLMLVALLGAMTAV	NS4a	2145	2159	HLA-DRB1*08:02	Dengue virus 4	ELISPOT	IFNg release	Positive
195386	GLITIAVASGLLWVA	NS4a	2176	2190	HLA-DRB1*07:01	Dengue virus 4	ELISPOT	IFNg release	Positive
195551	IYVILTITIALVA	NS4a	2227	2241	HLA-DRB1*01:01	Dengue virus 4	ELISPOT	IFNg release	Positive

195575	KLMSGLIAIVASGL	NS4a	2172	2186	HLA-DRB1*08:02	Dengue virus 4	ELISPOT	IFNg release	Positive
195648	LIYVILTILIALV	NS4a	2226	2240	HLA-DRB1*07:01	Dengue virus 4	ELISPOT	IFNg release	Positive
195809	NQLIYVILTITIIG	NS4a	2224	2238	HLA-DRB1*08:02	Dengue virus 4	ELISPOT	IFNg release	Positive
195853	QLIYVILTIAIGL	NS4a	2225	2239	HLA-DRB1*15:02	Dengue virus 4	ELISPOT	IFNg release	Positive
195876	RAKLALDNIVMLHTT	NS4a	2112	2126	HLA-DRB1*03:01	Dengue virus 4	ELISPOT	IFNg release	Positive
196058	TLMLVALLGAMTAGI	NS4a	2146	2160	HLA-DRB1*01:01	Dengue virus 4	ELISPOT	IFNg release	Positive
196250	YVILAILTIGLVAA	NS4a	2228	2242	HLA-DRB1*08:02	Dengue virus 4	ELISPOT	IFNg release	Positive
196251	YVILALLTISLIAA	NS4a	2228	2242	HLA-DRB1*15:02	Dengue virus 4	ELISPOT	IFNg release	Positive
539165	DILTEIASLPTYLSS	NS4a	2097	2111	HLA-DRB1*04:07	Dengue virus 4	ELISPOT	IFNg release	Positive
539313	GKAYQHAIINELPESL	NS4a	2130	2144	HLA-DRB1*10:01	Dengue virus 4	ELISPOT	IFNg release	Positive
539631	LTEIASLPTYLSSRA	NS4a	2099	2113	HLA-DRB1*04:03	Dengue virus 4	ELISPOT	IFNg release	Positive
539638	LVALLGAMTAGIFLF	NS4a	2149	2163	HLA-DRB1*09:01	Dengue virus 4	ELISPOT	IFNg release	Positive
539666	MGLITIAVASGLLVV	NS4a	2175	2189	HLA-DRB1*09:01	Dengue virus 4	ELISPOT	IFNg release	Positive
738568	AYQHAIINELPESLET	NS4a	2132	2146	HLA-DRB1*04:07	Dengue virus 4	ELISPOT	IFNg release	Positive
867726	LIYVILTITIIGLI	NS4a	2226	2240	HLA-DRB1*04:02	Dengue virus 4	ELISPOT	IFNg release	Positive
868951	SLPTYLSSRAKLALD	NS4a	2104	2118	HLA-DRB3*02:02	Dengue virus 4	ELISPOT	IFNg release	Positive
195177	ASLVMLLVHAIIGP	NS4b	2348	2362	HLA-DRB1*13:01	Dengue virus 4	ELISPOT	IFNg release	Positive
195214	DFGFYQVKTTETILD	NS4b	2254	2268	HLA-DRB1*04:01	Dengue virus 4	ELISPOT	IFNg release	Positive
195219	DLEPISYDPKFEKQL	NS4b	2393	2407	HLA-DRB1*03:01	Dengue virus 4	ELISPOT	IFNg release	Positive
195276	ETILDVDLRPASAW	NS4b	2263	2277	HLA-DRB1*03:01	Dengue virus 4	ELISPOT	IFNg release	Positive
195383	GLAFSLIKNAQTPRR	NS4b	2473	2487	HLA-DRB1*04:01	Dengue virus 4	ELISPOT	IFNg release	Positive
195592	KTETILDVDLRPAS	NS4b	2261	2275	HLA-DRB1*03:01	Dengue virus 4	ELISPOT	IFNg release	Positive
195616	LCAGQLLLMRTTWAF	NS4b	2415	2429	HLA-DRB1*04:01	Dengue virus 4	ELISPOT	IFNg release	Positive
195719	LTASLAMLVHYAI	NS4b	2346	2360	HLA-DRB1*07:01	Dengue virus 4	ELISPOT	IFNg release	Positive
195720	LTASLVMLLVHYAI	NS4b	2346	2360	HLA-DRB1*12:02	Dengue virus 4	ELISPOT	IFNg release	Positive
196048	TILDVDLRPASAWTL	NS4b	2265	2279	HLA-DRB1*03:01	Dengue virus 4	ELISPOT	IFNg release	Positive
196052	TKTDFGFYQVKTTET	NS4b	2251	2265	HLA-DRB1*04:01	Dengue virus 4	ELISPOT	IFNg release	Positive
196055	TUJASLVMLLVHYAI	NS4b	2345	2359	HLA-DRB1*01:01	Dengue virus 4	ELISPOT	IFNg release	Positive
196082	TLIASLVMLLVHYA	NS4b	2344	2358	HLA-DRB1*13:01	Dengue virus 4	ELISPOT	IFNg release	Positive
196208	WAFCEVLATATGPIL	NS4b	2427	2441	HLA-DRB1*07:01	Dengue virus 4	ELISPOT	IFNg release	Positive
196209	WAFCEVLATATGPVL	NS4b	2427	2441	HLA-DRB1*07:01	Dengue virus 4	ELISPOT	IFNg release	Positive
196226	WTLVAVATTITPML	NS4b	2277	2291	HLA-DRB1*07:01	Dengue virus 4	ELISPOT	IFNg release	Positive
539057	AGQLLLMRTTWAFCE	NS4b	2417	2431	HLA-DRB1*13:01	Dengue virus 4	ELISPOT	IFNg release	Positive
539185	DVDLRPASAWTLAYV	NS4b	2268	2282	HLA-DRB1*09:01	Dengue virus 4	ELISPOT	IFNg release	Positive
539584	LLAMGCYSQVNPPTL	NS4b	2332	2346	HLA-DRB1*09:01	Dengue virus 4	ELISPOT	IFNg release	Positive
539639	LVHYAIIGPGLQAKA	NS4b	2354	2368	HLA-DQA1*05:01/DQB1*02:01	Dengue virus 4	ELISPOT	IFNg release	Positive
539661	MGCYSQVNPPTLIAS	NS4b	2335	2349	HLA-DRB1*09:01	Dengue virus 4	ELISPOT	IFNg release	Positive
738447	AFSLIKNAQTPRRGT	NS4b	2475	2489	HLA-DRB1*14:06	Dengue virus 4	ELISPOT	IFNg release	Positive
738500	AMGCYSQVNPPTLIA	NS4b	2334	2348	HLA-DRB1*04:07	Dengue virus 4	ELISPOT	IFNg release	Positive
738897	FGFYQVKTTETILDV	NS4b	2255	2269	HLA-DRB1*04:07	Dengue virus 4	ELISPOT	IFNg release	Positive
739202	ILDVDLRPASAWTLY	NS4b	2266	2280	HLA-DRB1*01:02	Dengue virus 4	ELISPOT	IFNg release	Positive
739417	LAFLSLIKNAQTPRRG	NS4b	2474	2488	HLA-DRB1*14:02	Dengue virus 4	ELISPOT	IFNg release	Positive
867009	GRFWNTTIAVSTANI	NS4b	2449	2463	HLA-DQA1*01:02/DQB1*06:02	Dengue virus 4	ELISPOT	IFNg release	Positive
1066543	ACLGKAYAQMWVSLMY	NS5	3240	3254	HLA-DRB1*04:01	Dengue virus 4	ELISPOT	IFNg release	Positive-Low
195230	DYMPVMKRYSAPESS	NS5	3369	3383	HLA-DRB1*11:01	Dengue virus 4	ELISPOT	IFNg release	Positive
195235	EEFISKVRSNAIGA	NS5	2884	2898	HLA-DRB1*08:02	Dengue virus 4	ELISPOT	IFNg release	Positive
195240	EEYVDYMPVMKRYSA	NS5	3365	3379	HLA-DRB1*11:01	Dengue virus 4	ELISPOT	IFNg release	Positive
195279	EYVDYMPVMKRYSAPE	NS5	3366	3380	HLA-DRB1*11:01	Dengue virus 4	ELISPOT	IFNg release	Positive
195411	GNIVSSVNTTSKMLL	NS5	2713	2727	HLA-DRB1*04:01	Dengue virus 4	ELISPOT	IFNg release	Positive
195454	HHFHKIFMKDGRSLV	NS5	3199	3213	HLA-DRB1*03:01	Dengue virus 4	ELISPOT	IFNg release	Positive
195499	ILAKAIFKLTYYQNKV	NS5	3050	3064	HLA-DRB1*07:01	Dengue virus 4	ELISPOT	IFNg release	Positive
195593	KTFMKDGRSLVPPCR	NS5	3202	3216	HLA-DRB1*03:01	Dengue virus 4	ELISPOT	IFNg release	Positive
195737	LWCGSLIGLSSRATW	NS5	3333	3347	HLA-DRB1*11:01	Dengue virus 4	ELISPOT	IFNg release	Positive
195764	MPVMKRYSAPESEGE	NS5	3371	3385	HLA-DRB1*08:02	Dengue virus 4	ELISPOT	IFNg release	Positive
195815	NRVWIEDNPNMTDKT	NS5	3302	3316	HLA-DRB1*03:01	Dengue virus 4	ELISPOT	IFNg release	Positive
195823	NWLWALLGKKKNPRL	NS5	2866	2880	HLA-DRB1*14:02	Dengue virus 4	ELISPOT	IFNg release	Positive
195835	PKPGTRMVMTTANW	NS5	2853	2867	HLA-DRB1*04:01	Dengue virus 4	ELISPOT	IFNg release	Positive
195858	QMWVSLMYFHRDLRL	NS5	3248	3262	HLA-DRB1*15:01	Dengue virus 4	ELISPOT	IFNg release	Positive
195879	REEFISKVRSNAIGA	NS5	2883	2897	HLA-DRB1*04:01	Dengue virus 4	ELISPOT	IFNg release	Positive
195919	RVWIEDNPNMIDKTP	NS5	3303	3317	HLA-DRB1*03:01	Dengue virus 4	ELISPOT	IFNg release	Positive
196071	TRMVMTTANWLVWAL	NS5	2857	2871	HLA-DRB1*04:01	Dengue virus 4	ELISPOT	IFNg release	Positive
196092	TYQNKVNTLVRPTPR	NS5	3059	3073	HLA-DRB1*08:02	Dengue virus 4	ELISPOT	IFNg release	Positive
196105	VDYMPVMKRYSAPEF	NS5	3368	3382	HLA-DRB1*11:01	Dengue virus 4	ELISPOT	IFNg release	Positive
196106	VDYMPVMKRYSAPESE	NS5	3368	3382	HLA-DRB1*11:01	Dengue virus 4	ELISPOT	IFNg release	Positive
196230	YAQMWVSLMYFHRDL	NS5	3246	3260	HLA-DRB1*15:01	Dengue virus 4	ELISPOT	IFNg release	Positive
539149	DCVVKPLDERFSTLLF	NS5	3152	3166	HLA class II	Dengue virus 4	ICS	IFNg release	Positive
539222	EKPDMTIIGRRLQRL	NS5	2757	2771	HLA-DRB1*12:02	Dengue virus 4	ELISPOT	IFNg release	Positive
539251	FEFYKRSGLIEDVRT	NS5	2512	2526	HLA-DRB1*09:01	Dengue virus 4	ELISPOT	IFNg release	Positive
539354	GTRMVMTTANWLVWA	NS5	2856	2870	HLA-DRB1*04:03	Dengue virus 4	ELISPOT	IFNg release	Positive
539456	KAIFKLTYYQNKVVKV	NS5	3053	3067	HLA-DRB1*09:01	Dengue virus 4	ELISPOT	IFNg release	Positive
539493	KMLNRFTRHRKPT	NS5	2724	2738	HLA-DRB1*13:01	Dengue virus 4	ELISPOT	IFNg release	Positive
539498	KPDMTIIGRRLQRLQ	NS5	2758	2772	HLA-DRB1*08:03	Dengue virus 4	ELISPOT	IFNg release	Positive
539553	LGEFGRAKGSRAIWY	NS5	2949	2963	HLA-DRB1*09:01	Dengue virus 4	ELISPOT	IFNg release	Positive
539656	MAISGDDCVVKPLDERF	NS5	3146	3162	HLA class II	Dengue virus 4	ICS	IFNg release	Positive
539703	MVTQLAMTDITPPGQQR	NS5	2824	2840	HLA class II	Dengue virus 4	ICS	IFNg release	Positive
539769	PGTRMVMTTANWLVW	NS5	2855	2869	HLA-DRB1*04:03	Dengue virus 4	ELISPOT	IFNg release	Positive
539770	PHHKILAKAIFKLTY	NS5	3046	3060	HLA-DRB1*12:02	Dengue virus 4	ELISPOT	IFNg release	Positive
540007	TTSKMLLNRFTRHR	NS5	2721	2735	HLA-DRB1*13:01	Dengue virus 4	ELISPOT	IFNg release	Positive
540041	VGTYGLNTFTNMEVQ	NS5	3091	3105	HLA-DRB1*15:06	Dengue virus 4	ELISPOT	IFNg release	Positive
739405	KVRSNAAGAVGFQEE	NS5	2889	2903	HLA-DRB1*01:02	Dengue virus 4	ELISPOT	IFNg release	Positive
740013	QLIRQMEAGVITQD	NS5	3105	3119	HLA-DRB1*01:02	Dengue virus 4	ELISPOT	IFNg release	Positive
866364	DERFSTLLFLNDMG	NS5	3159	3173	HLA-DRB1*01:01	Dengue virus 4	ELISPOT	IFNg release	Positive
866633	ESCVVNMKGREKKL	NS5	2935	2949	HLA-DRB5*01:01	Dengue virus 4	ELISPOT	IFNg release	Positive
867070	HKIFMKDGRSLVPC	NS5	3202	3216	HLA-DRB3*02:02	Dengue virus 4	ELISPOT	IFNg release	Positive
867315	ISKVRSNAAGAVFQ	NS5	2887	2901	HLA-DRB3*02:02	Dengue virus 4	ELISPOT	IFNg release	Positive
867411	KILAKAIFKLTYYQNK	NS5	3049	3063	HLA-DRB1*04:02	Dengue virus 4	ELISPOT	IFNg release	Positive
867473	KPLDERFGTSLFLFN	NS5	3156	3170	HLA-DRB1*01:01	Dengue virus 4	ELISPOT	IFNg release	Positive
867575	LDERFGTSLFLFNDM	NS5	3158	3172	HLA-DRB1*04:01	Dengue virus 4	ELISPOT	IFNg release	Positive

868638	RDRLASMAICSAVP	NS5	3258	3272	HLA-DQA1*01:02/DQB1*06:02	Dengue virus 4	ELISPOT	IFNg release	Positive
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CD8 DENV-1 Epitopes

Epitope_ID	AminoAcid_Seq	Protein_Name	Start	End	Allele	Serotype	Method/Technique	Assay Group	Qualitative Measure
150255	GPMKLVMAFI	C	43	52	HLA-B*07:02	Dengue virus 1	ELISPOT	IFNg release	Positive
180637	MAFIAFLRF	C	48	56	HLA-B*35:01	Dengue virus 1	ELISPOT	IFNg release	Positive
183175	FIAFLRFLA	C	50	58	HLA-A*68:02	Dengue virus 1	ELISPOT	IFNg release	Positive
183220	FNMLKRARNR	C	14	23	HLA-A*33:01	Dengue virus 1	ELISPOT	IFNg release	Positive
183800	IMNRRKRVS	C	94	102	HLA-B*08:01	Dengue virus 1	ELISPOT	IFNg release	Positive
184003	KEISSMLNIM	C	86	95	HLA-B*40:01	Dengue virus 1	ELISPOT	IFNg release	Positive
184458	LLMLLPTAL	C	83	91	HLA-B*08:01	Dengue virus 1	ELISPOT	IFNg release	Positive
184835	MKLVMAFI	C	44	53	HLA-B*35:01	Dengue virus 1	ELISPOT	IFNg release	Positive
184844	MLKRERNRV	C	15	23	HLA-B*08:01	Dengue virus 1	ELISPOT	IFNg release	Positive
184880	MNRRKRVS	C	95	103	HLA-B*08:01	Dengue virus 1	ELISPOT	IFNg release	Positive
185102	NRRKRVS	C	96	104	HLA-B*08:01	Dengue virus 1	ELISPOT	IFNg release	Positive
185492	RRKRVS	C	97	106	HLA-B*08:01	Dengue virus 1	ELISPOT	IFNg release	Positive
240082	MVLALITFL	C	24	32	HLA-A*02:01	Dengue virus 1	ELISPOT	IFNg release	Positive
150378	LLMLVTPSM	PreM	271	279	HLA-B*08:01	Dengue virus 1	ELISPOT	IFNg release	Positive
183596	HPGFTVIALF	PreM	244	253	HLA-B*35:01	Dengue virus 1	ELISPOT	IFNg release	Positive
16554	FLDLPLPWT	E	213	221	HLA-A2	Dengue virus 1	ICS	IFNg release	Positive
183421	GLNSRSTSL	E	747	755	HLA-B*08:01	Dengue virus 1	ELISPOT	IFNg release	Positive
183654	IAGGMVTLY	E	760	768	HLA-B*35:01	Dengue virus 1	ELISPOT	IFNg release	Positive
184377	LGLNSRSTSL	E	746	755	HLA-B*08:01	Dengue virus 1	ELISPOT	IFNg release	Positive
184626	LTDYGALT	E	456	464	HLA-A*01:01	Dengue virus 1	ELISPOT	IFNg release	Positive
185212	PTSEIQLTDY	E	449	458	HLA-A*01:01	Dengue virus 1	ELISPOT	IFNg release	Positive
185893	TEVTNP	E	329	337	HLA-B*40:01	Dengue virus 1	ELISPOT	IFNg release	Positive
186524	WTMKIGIGIL	E	733	742	HLA-B*08:01	Dengue virus 1	ELISPOT	IFNg release	Positive
186551	YENLKYVIV	E	412	421	HLA-B*40:01	Dengue virus 1	ELISPOT	IFNg release	Positive
419306	PTLDIELLK	E	319	327	HLA-A*11:01	Dengue virus 1	ELISPOT	IFNg release	Positive
50596	QEGAMHTAL	E	536	544	HLA-A*02:01	Dengue virus 1	ELISPOT	IFNg release	Positive
588005	RDFVEGLSGATWVDVVL	E	289	305	HLA class I	Dengue virus 1	ICS	IFNg release	Positive
590597	VEGLSGATWVDVLEHG	E	292	308	HLA class I	Dengue virus 1	ICS	IFNg release	Positive-Intermediate
150258	GPWHLGKLEL	NS1	1041	1050	HLA-B*07:02	Dengue virus 1	ELISPOT	IFNg release	Positive
180836	YGGPISQHN	NS1	1022	1031	HLA-B*35:01	Dengue virus 1	ELISPOT	IFNg release	Positive
183619	HTWTEQYKF	NS1	801	809	HLA-B57	Dengue virus 1	51 chromium	cytotoxicity	Positive
60104	SPKRLSAAI	NS1	813	821	HLA-B*08:01	Dengue virus 1	ELISPOT	IFNg release	Positive
180641	MALSI	NS2a	1297	1305	HLA-B*51:01	Dengue virus 1	ELISPOT	IFNg release	Positive
183245	FQSHQLWATL	NS2a	1267	1276	HLA-B*15:01	Dengue virus 1	ELISPOT	IFNg release	Positive
183246	FRRLTSREVL	NS2a	1220	1229	HLA-B*08:01	Dengue virus 1	ELISPOT	IFNg release	Positive
183252	FSLHYAWKTM	NS2a	1286	1295	HLA-B*35:01	Dengue virus 1	ELISPOT	IFNg release	Positive
184274	LALMATFKM	NS2a	1202	1210	HLA-B*35:01	Dengue virus 1	ELISPOT	IFNg release	Positive
184623	LTDQSHQL	NS2a	1264	1272	HLA-A*01:01	Dengue virus 1	ELISPOT	IFNg release	Positive
184736	MAMVL	NS2a	1295	1303	HLA-B*35:01	Dengue virus 1	ELISPOT	IFNg release	Positive
184856	MLMTGT	NS2a	1158	1167	HLA-B*35:01	Dengue virus 1	ELISPOT	IFNg release	Positive
185468	RPMFAVGLLF	NS2a	1211	1220	HLA-B*35:01	Dengue virus 1	ELISPOT	IFNg release	Positive
419037	RPMFAVGLIF	NS2a	1211	1220	HLA-B*35:01	Dengue virus 1	ELISPOT	IFNg release	Positive
150254	GPLVAGLL	NS2b	1375	1383	HLA-B*07:02	Dengue virus 1	ELISPOT	IFNg release	Positive
185651	SILLSLLK	NS2b	1360	1368	HLA-A*11:01	Dengue virus 1	ELISPOT	IFNg release	Positive
419005	LLAVSGVYPM	NS2b	1448	1457	HLA-B*15:01	Dengue virus 1	ELISPOT	IFNg release	Positive
13346	EMAEALKGMP	NS3	231	245	HLA class I	Dengue virus 1	ELISPOT	IFNg release	Positive
133501	AIVREAIKR	NS3	1682	1690	HLA-A*02:01	Dengue virus 1	ELISPOT	IFNg release	Positive
150169	DPRLCKPV	NS3	1900	1908	HLA-B*07:02	Dengue virus 1	ELISPOT	IFNg release	Positive
150341	KPGTSGSPI	NS3	1606	1614	HLA-B*07:02	Dengue virus 1	ELISPOT	IFNg release	Positive
150538	RPRWLDART	NS3	2068	2076	HLA-B*07:02	Dengue virus 1	ELISPOT	IFNg release	Positive
150556	RVIDPRRLCK	NS3	1897	1906	HLA-A*03:01	Dengue virus 1	ELISPOT	IFNg release	Positive
150643	PEGIIPALF	NS3	1976	1985	HLA-B*35:01	Dengue virus 1	ELISPOT	IFNg release	Positive
167826	TSGTYVSAIAQAKASQE	NS3	157	173	HLA class I	Dengue virus 1	ELISPOT	IFNg release	Positive
180373	APTRVVASEM	NS3	1698	1707	HLA class I	Dengue virus 1	ELISPOT	IFNg release	Positive
180408	DPASIAARGY	NS3	1766	1775	HLA-B*35:01	Dengue virus 1	ELISPOT	IFNg release	Positive
180423	EERDIPERSW	NS3	1811	1820	HLA-B*44:02	Dengue virus 1	ELISPOT	IFNg release	Positive
180472	GEARKTFVEL	NS3	2003	2012	HLA-B*40:01	Dengue virus 1	ELISPOT	IFNg release	Positive
180670	MPVTVASAAQ	NS3	1923	1932	HLA-B*35:01	Dengue virus 1	ELISPOT	IFNg release	Positive
180682	NPEIEDDIF	NS3	1650	1658	HLA-B*35:01	Dengue virus 1	ELISPOT	IFNg release	Positive
180804	VPNNYMIIM	NS3	1751	1759	HLA-B*51:01	Dengue virus 1	ELISPOT	IFNg release	Positive
182519	AIKRKLRTL	NS3	1687	1695	HLA-B*08:01	Dengue virus 1	ELISPOT	IFNg release	Positive
182772	DISEMGANF	NS3	1885	1893	HLA-A*26:01	Dengue virus 1	ELISPOT	IFNg release	Positive
183223	FPGKTVWFVP	NS3	1830	1839	HLA-B*35:01	Dengue virus 1	ELISPOT	IFNg release	Positive
183229	FPQSNV	NS3	1801	1810	HLA-B*35:01	Dengue virus 1	ELISPOT	IFNg release	Positive
183598	HPGSGKTRRY	NS3	1670	1679	HLA-B*35:01	Dengue virus 1	ELISPOT	IFNg release	Positive
183929	IYRILQRGLL	NS3	1497	1506	HLA-B*08:01	Dengue virus 1	ELISPOT	IFNg release	Positive
184316	LEENMDVEIW	NS3	2049	2058	HLA-B*44:03	Dengue virus 1	ELISPOT	IFNg release	Positive
184884	MPIRYQTAV	NS3	1714	1723	HLA-B*35:01	Dengue virus 1	ELISPOT	IFNg release	Positive
184896	MPVTVASAA	NS3	1923	1931	HLA-B*35:01	Dengue virus 1	ELISPOT	IFNg release	Positive
185124	NTPEGIIPA	NS3	1975	1983	HLA-A*68:02	Dengue virus 1	ELISPOT	IFNg release	Positive
185125	NTPEGIIPAL	NS3	1975	1984	HLA-A*68:02	Dengue virus 1	ELISPOT	IFNg release	Positive
185327	QYIMGQPL	NS3	1947	1955	HLA-A*24:02	Dengue virus 1	ELISPOT	IFNg release	Positive
185741	SPVRVPNNYM	NS3	1747	1756	HLA-B*35:01	Dengue virus 1	ELISPOT	IFNg release	Positive
185827	SYKVASEG	NS3	2023	2031	HLA-A*24:02	Dengue virus 1	ELISPOT	IFNg release	Positive
186284	VLDDGIYRI	NS3	1492	1500	HLA-A*02:01	Dengue virus 1	ELISPOT	IFNg release	Positive
186559	YKVASEGQY	NS3	2024	2033	HLA-B*35:01	Dengue virus 1	ELISPOT	IFNg release	Positive
186603	YSDPLALREF	NS3	2077	2086	HLA-B*35:01	Dengue virus 1	ELISPOT	IFNg release	Positive
22825	GTSGSPVNNR	NS3	133	142	HLA-B*57:01	Dengue virus 1	51 chromium	cytotoxicity	Positive
32147	KLRTLVLAPTRV	NS3	216	230	HLA class I	Dengue virus 1	ELISPOT	IFNg release	Positive

35237	LDNINTPEGIIPALFEPERE	NS3	496	515	HLA class I	Dengue virus 1	ELISPOT	IFNg release	Positive
38400	LPAIVREAI	NS3	1680	1688	HLA-B*53:01	Dengue virus 1	ELISPOT	IFNg release	Positive
38766	LPVWLSYKV	NS3	2018	2026	HLA-B*51:01	Dengue virus 1	ELISPOT	IFNg release	Positive
39095	LRGEARKTFVELMRR	NS3	526	540	HLA class I	Dengue virus 1	ELISPOT	IFNg release	Positive
419024	NMIIMDEAHF	NS3	1755	1764	HLA-B*15:01	Dengue virus 1	ELISPOT	IFNg release	Positive
419124	AVEPGKNPK	NS3	1574	1582	HLA-A*11:01	Dengue virus 1	ELISPOT	IFNg release	Positive
419125	AVKSEHTGR	NS3	1722	1730	HLA-A*11:01	Dengue virus 1	ELISPOT	IFNg release	Positive
419229	IYRILQRGL	NS3	1497	1505	HLA-A*24:02	Dengue virus 1	ELISPOT	IFNg release	Positive
50894	QGKRLEPSWASVKKDLISYG	NS3	1536	1555	HLA class I	Dengue virus 1	ELISPOT	IFNg release	Positive
539170	DLMCHATF	NS3	1734	1741	HLA-B*08:01	Dengue virus 1	ICS	IFNg release	Positive
539663	MGEAAAFMTATPPGSV	NS3	1782	1798	HLA class I	Dengue virus 1	ICS	IFNg release	Positive
539750	NVRTLILAPTRVVASEM	NS3	1690	1706	HLA class I	Dengue virus 1	ICS	IFNg release	Positive
539753	NYNMIIMDEAHFTDPA	NS3	1753	1768	HLA class I	Dengue virus 1	ICS	IFNg release	Positive
56309	RVIDPRRCL	NS3	1897	1905	HLA-B*07:02	Dengue virus 1	ELISPOT	IFNg release	Positive
585710	LAPTRVASEM	NS3	83	93	HLA class I	Dengue virus 1	ICS	IFNg release	Positive-High
62184	SVKDKLISYGGGWRF	NS3	71	85	HLA class I	Dengue virus 1	ELISPOT	IFNg release	Positive
65546	TPEGIIPAL	NS3	1976	1984	HLA class I	Dengue virus 1	51 chromium	cytotoxicity	Positive
65549	TPEGIIPSM	NS3	1975	1983	HLA-B*53:01	Dengue virus 1	51 chromium	cytotoxicity	Positive
150649	TPQDNQLAYV	NS4a	2222	2231	HLA-B*07:02	Dengue virus 1	ELISPOT	IFNg release	Positive
180780	TPQDNQLAY	NS4a	2222	2230	HLA-B*35:01	Dengue virus 1	ELISPOT	IFNg release	Positive
182912	EFFLMVLLI	NS4a	2206	2214	HLA-A*24:02	Dengue virus 1	ELISPOT	IFNg release	Positive
183162	FFLMVLLIPE	NS4a	2207	2216	HLA-A*33:01	Dengue virus 1	ELISPOT	IFNg release	Positive
183813	IPEPDRQRT	NS4a	2214	2223	HLA-B*35:01	Dengue virus 1	ELISPOT	IFNg release	Positive
184522	LPDTIETLM	NS4a	2142	2150	HLA-B*35:01	Dengue virus 1	ELISPOT	IFNg release	Positive
184523	LPDTIETLML	NS4a	2142	2151	HLA-B*35:01	Dengue virus 1	ELISPOT	IFNg release	Positive
184554	LPQHLTQRAQ	NS4a	2107	2116	HLA-B*35:01	Dengue virus 1	ELISPOT	IFNg release	Positive
184739	MASSVLLWM	NS4a	2183	2191	HLA-B*35:01	Dengue virus 1	ELISPOT	IFNg release	Positive
419128	AYRHAMEEL	NS4a	2134	2142	HLA-A*24:02	Dengue virus 1	ELISPOT	IFNg release	Positive-High
41986	MLLALIAVL	NS4a	2150	2158	HLA-A2	Dengue virus 1	ICS	IFNg release	Positive
133716	TLYAVATTI	NS4b	2284	2292	HLA-A*02:01	Dengue virus 1	ELISPOT	IFNg release	Positive
150474	NPLTLTAAV	NS4b	2348	2356	HLA-B*07:02	Dengue virus 1	ELISPOT	IFNg release	Positive
150579	SPGKFWNTTI	NS4b	2453	2462	HLA-B*07:02	Dengue virus 1	ELISPOT	IFNg release	Positive
180382	ATGPLTTLV	NS4b	2442	2450	HLA-B*58:01	Dengue virus 1	ELISPOT	IFNg release	Positive
183594	HPASAWTLYA	NS4b	2278	2287	HLA-B*35:01	Dengue virus 1	ELISPOT	IFNg release	Positive
186427	VYDAKFEK	NS4b	2403	2411	HLA-A*11:01	Dengue virus 1	ELISPOT	IFNg release	Positive
27180	ILLMRTTWA	NS4b	2426	2434	HLA-A2	Dengue virus 1	ICS	IFNg release	Positive
41093	MANIFRGSY	NS4b	2466	2474	HLA-B*35:01	Dengue virus 1	ELISPOT	IFNg release	Positive
64286	TIENTANISLTAIA	NS4b	2300	2314	HLA class I	Dengue virus 1	ELISPOT	IFNg release	Positive
69652	VLMVLVAHYA	NS4b	2356	2364	HLA-A2	Dengue virus 1	ICS	IFNg release	Positive
74558	YLAGAGLAF	NS4b	2474	2482	HLA-B*07:02	Dengue virus 1	ELISPOT	IFNg release	Positive
1068332	SSWEDVPYL	NS5	3323	3331	HLA-A*02:01	Dengue virus 1	ELISPOT	IFNg release	Positive
133702	SRNSTHEMY	NS5	2703	2711	HLA-A*02:01	Dengue virus 1	ELISPOT	IFNg release	Positive
14325	ETACLKSY	NS5	3242	3250	HLA-A*26:01	Dengue virus 1	ELISPOT	IFNg release	Positive
150308	IPMATYGWNL	NS5	2607	2616	HLA-B*07:02	Dengue virus 1	ELISPOT	IFNg release	Positive
150674	TVMDISRR	NS5	3080	3088	HLA-A*11:01	Dengue virus 1	multimer/tetramer	qualitative binding	Positive
180376	ASSMVNGVVR	NS5	2809	2818	HLA-B*57:01	Dengue virus 1	ELISPOT	IFNg release	Positive
180411	DTTPFGQQR	NS5	2837	2845	HLA-A*68:01	Dengue virus 1	ELISPOT	IFNg release	Positive
180548	KAKGSRAIW	NS5	2959	2967	HLA-B*57:01	Dengue virus 1	ELISPOT	IFNg release	Positive
180571	KPRICTREEF	NS5	2882	2891	HLA-B*07:02	Dengue virus 1	ELISPOT	IFNg release	Positive
180723	RLEFEALGF	NS5	2974	2983	HLA-A*23:01	Dengue virus 1	ELISPOT	IFNg release	Positive
182554	ALLATSIFK	NS5	3054	3062	HLA-A*11:01	Dengue virus 1	ELISPOT	IFNg release	Positive
182599	AQMWQLMYF	NS5	3251	3259	HLA-B*15:01	Dengue virus 1	ELISPOT	IFNg release	Positive
182836	DYMTSMKRF	NS5	3373	3381	HLA-A*24:02	Dengue virus 1	ELISPOT	IFNg release	Positive
183147	FCSHHFHL	NS5	3200	3208	HLA-B*08:01	Dengue virus 1	ELISPOT	IFNg release	Positive
183275	FTNMEVQLIR	NS5	3104	3113	HLA-B*35:01	Dengue virus 1	ELISPOT	IFNg release	Positive
183828	IPMVTQIAM	NS5	2827	2835	HLA-B*07:02	Dengue virus 1	ELISPOT	IFNg release	Positive
184212	KVRKDIPQW	NS5	3178	3186	HLA-B*57:01	Dengue virus 1	ELISPOT	IFNg release	Positive
184787	MEVQLVRQM	NS5	3107	3115	HLA-B*40:01	Dengue virus 1	ELISPOT	IFNg release	Positive
184849	MLLNRTTMA	NS5	24	32	HLA-B*08:01	Dengue virus 1	ELISPOT	IFNg release	Positive
184898	MQRKHGGML	NS5	2689	2697	HLA-B*08:01	Dengue virus 1	ELISPOT	IFNg release	Positive
184956	MITEDMLSVW	NS5	3296	3305	HLA-B*58:01	Dengue virus 1	ICS	IFNg release	Positive
185279	QMQRKHGGML	NS5	2688	2697	HLA-B*08:01	Dengue virus 1	ELISPOT	IFNg release	Positive
185354	REIVPCRNRQ	NS5	3214	3223	HLA-B*40:01	Dengue virus 1	ELISPOT	IFNg release	Positive
185485	RQMESEGIFL	NS5	3113	3122	HLA-B*15:01	Dengue virus 1	ELISPOT	IFNg release	Positive
186150	TVMDVISRR	NS5	3080	3088	HLA-A*68:01	Dengue virus 1	ELISPOT	IFNg release	Positive
186176	TWSIAHHQW	NS5	3286	3295	HLA-A*23:01	Dengue virus 1	ELISPOT	IFNg release	Positive
186217	VEDERFWDL	NS5	2918	2926	HLA-B*40:01	Dengue virus 1	ELISPOT	IFNg release	Positive
419208	GVEGEGHLK	NS5	2998	3006	HLA-A*11:01	Dengue virus 1	ELISPOT	IFNg release	Positive-High
5223	ATYGNLVVK	NS5	2610	2618	HLA-A*03:01	Dengue virus 1	ELISPOT	IFNg release	Positive
539435	ISGDDCVVKPIDDRFAT	NS5	3152	3168	HLA class I	Dengue virus 1	ICS	IFNg release	Positive
539702	MVTQIAMTDTTPFGQQR	NS5	2829	2845	HLA class I	Dengue virus 1	ICS	IFNg release	Positive
540100	VVKPIDDRFATALTALN	NS5	3157	3173	HLA class I	Dengue virus 1	ICS	IFNg release	Positive
62903	TAKWLWGFLSRNKKPRICR	NS5	2869	2888	HLA class I	Dengue virus 1	ELISPOT	IFNg release	Positive
65567	TPFGQQRVF	NS5	2839	2847	HLA class I	Dengue virus 1	ELISPOT	IFNg release	Positive
67362	TYGWNLVKL	NS5	2611	2619	HLA-A*24:02	Dengue virus 1	ELISPOT	IFNg release	Positive
72563	WHYDEDNPKYKTWAYHGSYEV	NS5	2784	2803	HLA class I	Dengue virus 1	ELISPOT	IFNg release	Positive
73076	WSIAHHQW	NS5	3287	3295	HLA-B*57:01	Dengue virus 1	ELISPOT	IFNg release	Positive

CD8 DENV-2 Epitopes

Epitope_ID	AminoAcid_Seq	Protein_Name	Start	End	Allele	Serotype	Method/Technique	Assay Group	Qualitative Measure
110018	VAFRLFLTI	C	51	59	HLA-B*08:01	Dengue virus 2	ELISPOT	IFNg release	Positive
150252	GPLKLFMAL	C	42	50	HLA-B*08:01	Dengue virus 2	ELISPOT	IFNg release	Positive
183766	ILNRRRTA	C	94	102	HLA-B*08:01	Dengue virus 2	ELISPOT	IFNg release	Positive
184378	LGMQLQGRGPL	C	35	44	HLA-B*08:01	Dengue virus 2	ELISPOT	IFNg release	Positive
184518	LNRRRTAG	C	95	103	HLA-B*08:01	Dengue virus 2	ELISPOT	IFNg release	Positive
184643	LTIPTTAGIL	C	21	30	HLA-B*08:01	Dengue virus 2	ELISPOT	IFNg release	Positive
185104	NRRRTAGV	C	96	104	HLA-B*08:01	Dengue virus 2	ELISPOT	IFNg release	Positive
185399	RKKARSTPF	C	5	13	HLA-B*08:01	Dengue virus 2	ELISPOT	IFNg release	Positive
186354	VQQLTKRFSL	C	26	35	HLA-B*08:01	Dengue virus 2	ELISPOT	IFNg release	Positive
150224	FTIMAAILAY	PreM	247	256	HLA-B*35:01	Dengue virus 2	ELISPOT	IFNg release	Positive
150299	ILLTAVAPSM	PreM	270	279	HLA-B*08:01	Dengue virus 2	ELISPOT	IFNg release	Positive
150571	SLLFKTEDGV	PreM	136	145	HLA-A*02:01	Dengue virus 2	ELISPOT	IFNg release	Positive
150634	TLMAMDLGEL	PreM	149	158	HLA-A*02:01	Dengue virus 2	ELISPOT	IFNg release	Positive
180588	LAYTIGTTTHF	PreM	254	263	HLA-B*35:01	Dengue virus 2	ELISPOT	IFNg release	Positive
180818	WILRHHPGFTMMAAIL	PreM	126	140	HLA class I	Dengue virus 2	ICS	IFNg release	Positive
183577	HFQRALIFIL	PreM	262	271	HLA-B*08:01	Dengue virus 2	ELISPOT	IFNg release	Positive
183621	HVQRIETWIL	PreM	233	242	HLA-B*08:01	Dengue virus 2	ELISPOT	IFNg release	Positive
186264	VGRQEKKGSL	PreM	128	137	HLA-B*08:01	Dengue virus 2	ELISPOT	IFNg release	Positive
150115	AIYGAAFSGV	E	722	731	HLA-A*02:01	Dengue virus 2	ELISPOT	IFNg release	Positive
150319	ITEAELTGY	E	450	458	HLA-A*01:01	Dengue virus 2	ELISPOT	IFNg release	Positive
150399	LQMENKAWLV	E	231	240	HLA-B*08:01	Dengue virus 2	ELISPOT	IFNg release	Positive
150456	MSYSMCTGKF	E	577	586	HLA-B*35:01	Dengue virus 2	ELISPOT	IFNg release	Positive
150529	RLITVNPVIL	E	630	638	HLA-A*02:01	Dengue virus 2	ELISPOT	IFNg release	Positive
150531	RLRMDKLQL	E	566	574	HLA-B*08:01	Dengue virus 2	ELISPOT	IFNg release	Positive
150578	SPCKIPFEIM	E	611	620	HLA-B*35:01	Dengue virus 2	ELISPOT	IFNg release	Positive
150725	WLVHRQWFL	E	486	494	HLA-B*08:01	Dengue virus 2	ELISPOT	IFNg release	Positive
16553	FDLPLPLWL	E	213	221	HLA-A2	Dengue virus 2	ICS	TNF release	Positive
180433	EPGQLKLNWF	E	663	672	HLA-B*35:01	Dengue virus 2	ELISPOT	IFNg release	Positive
180453	FGAIYGAAF	E	720	728	HLA-B*35:01	Dengue virus 2	ELISPOT	IFNg release	Positive
180528	IPFEIMDLEK	E	615	624	HLA-B*35:01	Dengue virus 2	ELISPOT	IFNg release	Positive
180563	KILIGVITWIGMNS	E	456	470	HLA class I	Dengue virus 2	ICS	IFNg release	Positive
180618	LPLPWLPGAD	E	496	505	HLA-B*35:01	Dengue virus 2	ELISPOT	IFNg release	Positive
180726	RMAILGDTAWDFGSL	E	691	705	HLA-B7	Dengue virus 2	ICS	IFNg release	Positive
180816	WNGNGCLFGKGGIVT	E	381	395	HLA class I	Dengue virus 2	ICS	IFNg release	Positive
182846	EAKQPATLR	E	329	337	HLA-A*68:01	Dengue virus 2	ELISPOT	IFNg release	Positive
183310	GAAFSGVSW	E	725	733	HLA-B*58:01	Dengue virus 2	ELISPOT	IFNg release	Positive
183437	GMNSRSTSL	E	747	755	HLA-B*08:01	Dengue virus 2	ELISPOT	IFNg release	Positive
183708	IGMNSRSTSL	E	746	755	HLA-B*08:01	Dengue virus 2	ELISPOT	IFNg release	Positive
183747	ILIGVIITW	E	737	745	HLA-B*58:01	Dengue virus 2	ELISPOT	IFNg release	Positive
183748	ILIGVVITW	E	737	745	HLA-B*58:01	Dengue virus 2	ELISPOT	IFNg release	Positive
183781	IMDLEKRHVL	E	619	628	HLA-B*08:01	Dengue virus 2	ELISPOT	IFNg release	Positive
183840	IQKETLVTF	E	512	520	HLA-B*15:01	Dengue virus 2	ELISPOT	IFNg release	Positive
183841	IQMSSGNLLF	E	550	559	HLA-A*23:01	Dengue virus 2	ELISPOT	IFNg release	Positive
184300	LATLRKYCI	E	53	61	HLA-B*08:01	Dengue virus 2	ELISPOT	IFNg release	Positive
184337	LEKRHVLGRL	E	622	631	HLA-B*08:01	Dengue virus 2	ELISPOT	IFNg release	Positive
184467	LLQMEDKAWL	E	478	487	HLA-B*08:01	Dengue virus 2	ELISPOT	IFNg release	Positive
184571	LQLKGMSYSM	E	572	581	HLA-B*08:01	Dengue virus 2	ELISPOT	IFNg release	Positive
184755	MDLEKRHVL	E	620	628	HLA-B*08:01	Dengue virus 2	ELISPOT	IFNg release	Positive
184899	MRGAKRMAI	E	686	694	HLA-B*08:01	Dengue virus 2	ELISPOT	IFNg release	Positive
184900	MRGAKRMAIL	E	686	695	HLA-B*08:01	Dengue virus 2	ELISPOT	IFNg release	Positive
184920	MSSGNLLFTG	E	552	561	HLA-B*58:01	Dengue virus 2	ELISPOT	IFNg release	Positive
185758	SRSTSLSVSL	E	750	759	HLA-B*08:01	Dengue virus 2	ELISPOT	IFNg release	Positive
185831	SYSMCTGKF	E	578	586	HLA-A*23:01	Dengue virus 2	ELISPOT	IFNg release	Positive
27061	ILGDTAWDFG	E	96	105	HLA class I	Dengue virus 2	ELISPOT	IFNg release	Positive
41407	MENKAWLVHRQWFLD	E	201	215	HLA-B*37:01	Dengue virus 2	ICS	IFNg release	Positive
51388	QLKGMSYSM	E	573	581	HLA-B*08:01	Dengue virus 2	ELISPOT	IFNg release	Positive
583702	GVSGGSWVDIVLEHGSCV	E	14	31	HLA class I	Dengue virus 2	ICS	IFNg release	Positive-Low
150259	GPWHLGKLEM	NS1	1041	1050	HLA-B*35:01	Dengue virus 2	ELISPOT	IFNg release	Positive
180450	FAGPVSQHNY	NS1	1022	1031	HLA-B*35:01	Dengue virus 2	ELISPOT	IFNg release	Positive
180496	GVFTTNIWLLKLEKEQ	NS1	936	950	HLA class I	Dengue virus 2	ICS	IFNg release	Positive
180689	NRAVHADMGYWIESA	NS1	966	980	HLA class I	Dengue virus 2	ICS	IFNg release	Positive
182938	KEENLVNSL	NS1	1115	1124	HLA-B*08:01	Dengue virus 2	ELISPOT	IFNg release	Positive
184512	LMWKQITPEL	NS1	841	850	HLA-B*08:01	Dengue virus 2	ELISPOT	IFNg release	Positive
185342	RAVHADMGY	NS1	192	200	HLA-B*58:01	Dengue virus 2	ELISPOT	IFNg release	Positive
185465	RPLKEKEENL	NS1	1111	1120	HLA-B*08:01	Dengue virus 2	ELISPOT	IFNg release	Positive
186474	WKTWGGAKKML	NS1	890	899	HLA-B*08:01	Dengue virus 2	ELISPOT	IFNg release	Positive
19225	GEDGCWYGM	NS1	1100	1108	HLA-B*40:01	Dengue virus 2	ELISPOT	IFNg release	Positive
150206	FLEMLRTRV	NS2a	1131	1140	HLA-A*02:01	Dengue virus 2	ELISPOT	IFNg release	Positive
150300	ILLVAVSFV	NS2a	1146	1154	HLA-A*02:01	Dengue virus 2	ELISPOT	IFNg release	Positive
150391	LMMTTIGIVL	NS2a	1228	1237	HLA-B*08:01	Dengue virus 2	ELISPOT	IFNg release	Positive
150415	LTDALALGM	NS2a	1250	1258	HLA-A*01:01	Dengue virus 2	ELISPOT	IFNg release	Positive
150448	MMATIGIAL	NS2a	1229	1237	HLA-B*35:01	Dengue virus 2	ELISPOT	IFNg release	Positive
150449	MMATIGIAL	NS2a	1229	1238	HLA-A*02:01	Dengue virus 2	ELISPOT	IFNg release	Positive
150457	MTDDIGMGV	NS2a	1191	1199	HLA-A*01:01	Dengue virus 2	ELISPOT	IFNg release	Positive
150540	RPTFAAGLLL	NS2a	1211	1220	HLA-B*07:02	Dengue virus 2	ELISPOT	IFNg release	Positive
150640	TMTDDIGMGV	NS2a	1176	1185	HLA-A*02:01	Dengue virus 2	ELISPOT	IFNg release	Positive
150741	YQLAVTIMA	NS2a	1157	1165	HLA-A*02:01	Dengue virus 2	ELISPOT	IFNg release	Positive
180671	MSFRDLGRVM	NS2a	1175	1184	HLA-B*35:01	Dengue virus 2	ELISPOT	IFNg release	Positive

180717	RDLGRVMVMVGATMT	NS2a	51	65	HLA class I	Dengue virus 2	ICS	IFNg release	Positive
180735	RVGTHKAILLVAVSF	NS2a	1153	1167	HLA class I	Dengue virus 2	ICS	IFNg release	Positive
183741	ILCVPNAVIL	NS2a	1279	1288	HLA-B*08:01	Dengue virus 2	ELISPOT	IFNg release	Positive
183825	IPLALTIKGL	NS2a	1319	1328	HLA-B*08:01	Dengue virus 2	ELISPOT	IFNg release	Positive
184864	MLRTRVGTK	NS2a	1149	1157	HLA-B*08:01	Dengue virus 2	ELISPOT	IFNg release	Positive
186041	TRVGTKHAIL	NS2a	1152	1161	HLA-B*08:01	Dengue virus 2	ELISPOT	IFNg release	Positive
150101	AAAWYLWEV	NS2b	1463	1471	HLA-A*02:01	Dengue virus 2	ELISPOT	IFNg release	Positive
150243	GLLTVCYVL	NS2b	1381	1389	HLA-A*02:01	Dengue virus 2	ELISPOT	IFNg release	Positive
150304	IMAVGMVSI	NS2b	1353	1361	HLA-A*02:01	Dengue virus 2	ELISPOT	IFNg release	Positive
150381	LLVISGLFPV	NS2b	1448	1457	HLA-A*02:01	Dengue virus 2	ELISPOT	IFNg release	Positive
150425	LVISGLFPV	NS2b	1449	1457	HLA-A*02:01	Dengue virus 2	ELISPOT	IFNg release	Positive
150584	SPILSITISE	NS2b	1416	1425	HLA-B*35:01	Dengue virus 2	ELISPOT	IFNg release	Positive
150610	TAAAWYLWEV	NS2b	117	126	HLA-A*02:01	Dengue virus 2	ELISPOT	IFNg release	Positive
180529	IPITAAAWY	NS2b	1459	1467	HLA-B*35:01	Dengue virus 2	ELISPOT	IFNg release	Positive
180531	IPMTGPLVAG	NS2b	1371	1380	HLA-B*35:01	Dengue virus 2	ELISPOT	IFNg release	Positive
180538	ISGLFPVSIPITAAA	NS2b	106	120	HLA class I	Dengue virus 2	ICS	IFNg release	Positive
180646	MAVGMVSIL	NS2b	1354	1362	HLA-B*35:01	Dengue virus 2	ELISPOT	IFNg release	Positive
183779	IMAVGMVSIL	NS2b	1353	1362	HLA-B*08:01	Dengue virus 2	ELISPOT	IFNg release	Positive
183819	IPITAAAWYL	NS2b	1459	1468	HLA-B*08:01	Dengue virus 2	ELISPOT	IFNg release	Positive
10643	DVKKDLISY	NS3	71	79	HLA-B62	Dengue virus 2	51 chromium	cytotoxicity	Positive
11063	EAHFTDPASIAARGY	NS3	285	299	HLA class I	Dengue virus 2	ELISPOT	IFNg release	Positive
11125	EALRGLPIR	NS3	233	241	HLA class I	Dengue virus 2	ELISPOT	IFNg release	Positive
124391	KTFVDLMRR	NS3	2006	2014	HLA-A*11:01	Dengue virus 2	ELISPOT	IFNg release	Positive
13358	EMEEALRGLPIRYQT	NS3	230	244	HLA class I	Dengue virus 2	ELISPOT	IFNg release	Positive
136890	TPPGSRDPF	NS3	1792	1800	HLA-B*35:01	Dengue virus 2	ELISPOT	IFNg release	Positive
150137	APTRVVAEM	NS3	222	231	HLA-B7	Dengue virus 2	multimer/tetramer	qualitative binding	Positive
150167	DLMRRGDLVP	NS3	2010	2019	HLA-A*02:01	Dengue virus 2	ELISPOT	IFNg release	Positive
150217	FPQSNAPIM	NS3	1800	1808	HLA-B*35:01	Dengue virus 2	ELISPOT	IFNg release	Positive
150346	KTFDSVYK	NS3	1863	1871	HLA-A*11:01	Dengue virus 2	multimer/tetramer	qualitative binding	Positive
150450	MPVTHSSAA	NS3	1922	1930	HLA-B*08:01	Dengue virus 2	ELISPOT	IFNg release	Positive
150451	MPVTHSSAAQ	NS3	1922	1931	HLA-B*35:01	Dengue virus 2	ELISPOT	IFNg release	Positive
150526	RIYSDPLALK	NS3	2074	2083	HLA-A*11:01	Dengue virus 2	ELISPOT	IFNg release	Positive
150595	SQIGAGVYK	NS3	1509	1517	HLA-A*11:01	Dengue virus 2	ELISPOT	IFNg release	Positive
150644	TPEGIIPSMF	NS3	1975	1984	HLA-B*53:01	Dengue virus 2	ELISPOT	IFNg release	Positive
150693	VPNYNLIIM	NS3	1750	1758	HLA-B*07:02	Dengue virus 2	ELISPOT	IFNg release	Positive
150740	YLPAlVREA	NS3	1678	1686	HLA-A*02:01	Dengue virus 2	ELISPOT	IFNg release	Positive
17802	FSPGTSGPSIIDKKG	NS3	130	144	HLA class I	Dengue virus 2	ELISPOT	IFNg release	Positive
180360	AAEGINVADRRWCDF	NS3	2026	2040	HLA-A24	Dengue virus 2	ELISPOT	IFNg release	Positive
180407	DNINTPEGIIPSMFE	NS3	496	510	HLA-B35	Dengue virus 2	ELISPOT	IFNg release	Positive
180428	EGEWKEGEEVQLAL	NS3	1561	1575	HLA class I	Dengue virus 2	ICS	IFNg release	Positive
180440	EREIPERSWNSGHEW	NS3	336	350	HLA-B*57:01	Dengue virus 2	ELISPOT	IFNg release	Positive
180460	FPQSNAPIMD	NS3	1800	1809	HLA-B*35:01	Dengue virus 2	ELISPOT	IFNg release	Positive
180471	GEARKTFVDL	NS3	2002	2011	HLA-B*40:01	Dengue virus 2	ELISPOT	IFNg release	Positive
180503	HPGAGKTKRY	NS3	1669	1678	HLA-B*35:01	Dengue virus 2	ELISPOT	IFNg release	Positive
180507	HTGREIVDLMCHATF	NS3	1726	1740	HLA class I	Dengue virus 2	ELISPOT	IFNg release	Positive
180575	KRYLPAIVREAIKRG	NS3	201	215	HLA-A*31:01	Dengue virus 2	ELISPOT	IFNg release	Positive
180589	LDARISYDPLALKEF	NS3	596	610	HLA class I	Dengue virus 2	ELISPOT	IFNg release	Positive
180605	LMCHATFTM	NS3	1734	1742	HLA-B*15:01	Dengue virus 2	ELISPOT	IFNg release	Positive
180611	LMRRGDLVPVWLAYRV	NS3	2011	2025	HLA-B*55:02	Dengue virus 2	ICS	IFNg release	Positive
180617	LPIRYQTPAI	NS3	1713	1722	HLA-B*35:01	Dengue virus 2	ELISPOT	IFNg release	Positive
180623	LPVWLAYKV	NS3	2017	2025	HLA-B*51:01	Dengue virus 2	ELISPOT	IFNg release	Positive
180624	LPVWLAYKVA	NS3	2017	2026	HLA-B*35:01	Dengue virus 2	ELISPOT	IFNg release	Positive
180625	LPVWLAYRV	NS3	2017	2025	HLA-B*51:01	Dengue virus 2	ELISPOT	IFNg release	Positive
180626	LPVWLAYRVA	NS3	2017	2026	HLA-B*51:01	Dengue virus 2	ELISPOT	IFNg release	Positive
180647	MEEALRGLPIRYQTP	NS3	1706	1720	HLA class I	Dengue virus 2	ELISPOT	IFNg release	Positive
180724	RGEARKTFVDLMRRG	NS3	2001	2015	HLA class I	Dengue virus 2	ELISPOT	IFNg release	Positive
180734	RSWNSGHEW	NS3	342	350	HLA-B*58:01	Dengue virus 2	ICS	IFNg release	Positive
180750	SPGTSGPSIIDKKGK	NS3	131	145	HLA-A*11:01	Dengue virus 2	ELISPOT	IFNg release	Positive
180756	STRVEMGEAAGIFMT	NS3	301	315	HLA-B*40:06	Dengue virus 2	ELISPOT	IFNg release	Positive-Low
182687	AYRIKQIGIL	NS3	1497	1506	HLA-B*08:01	Dengue virus 2	ELISPOT	IFNg release	Positive
182848	EARKTFVDL	NS3	2003	2011	HLA-B*08:01	Dengue virus 2	ELISPOT	IFNg release	Positive
182892	EENMEVEIW	NS3	2049	2057	HLA-B*44:02	Dengue virus 2	ELISPOT	IFNg release	Positive
182898	EEREIPERSW	NS3	1810	1819	HLA-B*44:03	Dengue virus 2	ELISPOT	IFNg release	Positive
183347	GERKKLKPRW	NS3	2061	2070	HLA-B*44:03	Dengue virus 2	ELISPOT	IFNg release	Positive
183724	IKRGLRTLIL	NS3	1687	1696	HLA-B*08:01	Dengue virus 2	ELISPOT	IFNg release	Positive
184318	LEENMEVEIW	NS3	2048	2057	HLA-B*44:02	Dengue virus 2	ELISPOT	IFNg release	Positive
185200	PRRCMKPVIL	NS3	1900	1909	HLA-B*08:01	Dengue virus 2	ELISPOT	IFNg release	Positive
185388	RIKQKIGILY	NS3	1499	1508	HLA-B*15:01	Dengue virus 2	ELISPOT	IFNg release	Positive
186211	VDRKGKVVGL	NS3	1615	1624	HLA-B*08:01	Dengue virus 2	ELISPOT	IFNg release	Positive
186242	VEMGEAAGIF	NS3	1779	1788	HLA-B*44:03	Dengue virus 2	ELISPOT	IFNg release	Positive
186301	VLMHRGKRI	NS3	1532	1540	HLA-B*08:01	Dengue virus 2	ELISPOT	IFNg release	Positive
22816	GTSGSPIADK	NS3	1608	1617	HLA-A*11:01	Dengue virus 2	multimer/tetramer	qualitative binding	Positive
22817	GTSGSPIADKK	NS3	1608	1618	HLA-A11	Dengue virus 2	ELISPOT	IFNg release	Positive
22818	GTSGSPIIDK	NS3	133	142	HLA-A*11:01	Dengue virus 2	ELISPOT	IFNg release	Positive
22819	GTSGSPIIDKK	NS3	133	143	HLA-A11	Dengue virus 2	51 chromium	cytotoxicity	Positive
22823	GTSGSPIVDK	NS3	133	142	HLA-A11	Dengue virus 2	51 chromium	cytotoxicity	Positive
22824	GTSGSPIVDK	NS3	1608	1617	HLA-A*11:01	Dengue virus 2	51 chromium	cytotoxicity	Positive
25929	IEPSWADVKKDLISY	NS3	65	79	HLA class I	Dengue virus 2	ELISPOT	IFNg release	Positive
26965	ILAPTRVVAEMEEA	NS3	220	234	HLA class I	Dengue virus 2	ELISPOT	IFNg release	Positive
27770	INYADRRWCF	NS3	555	564	HLA-A24	Dengue virus 2	ELISPOT	IFNg release	Positive
2859	ALRGLPIRY	NS3	234	242	HLA-A*03:01	Dengue virus 2	51 chromium	cytotoxicity	Positive

35238	LDNINTPEGIIPSMF	NS3	495	509	HLA class I	Dengue virus 2	ELISPOT	IFNg release	Positive
46575	NYADRKWCF	NS3	2031	2039	HLA-A24	Dengue virus 2	51 chromium	cytotoxicity	Positive
46576	NYADRRWCF	NS3	556	564	HLA-A24	Dengue virus 2	ELISPOT	IFNg release	Positive
539620	LRTLILAPTRVVAEM	NS3	1691	1706	HLA class I	Dengue virus 2	ICS	IFNg release	Positive
539751	NYNLIIMDEAHFTDPA	NS3	1752	1767	HLA class I	Dengue virus 2	ICS	IFNg release	Positive
539752	NYNLIIMDEAHFTDPASI	NS3	1752	1769	HLA class I	Dengue virus 2	ICS	IFNg release	Positive
539985	TLILAPTRVVAEMEEA	NS3	1693	1709	HLA class I	Dengue virus 2	ICS	IFNg release	Positive
54176	RIKQKGIL	NS3	1499	1506	HLA-B8	Dengue virus 2	ELISPOT	IFNg release	Positive
5542	AVSLDFSPGTSGSPI	NS3	125	139	HLA class I	Dengue virus 2	ELISPOT	IFNg release	Positive
56310	RVIDPRRCMK	NS3	1896	1905	HLA-A*31:01	Dengue virus 2	ELISPOT	IFNg release	Positive
57554	SEMAGNFKA	NS3	1872	1880	HLA-B*44:03	Dengue virus 2	ELISPOT	IFNg release	Positive
65548	TPEGIIPSL	NS3	1975	1983	HLA-B35	Dengue virus 2	51 chromium	cytotoxicity	Positive
65550	TPEGIIPSMFEPERE	NS3	500	514	HLA class I	Dengue virus 2	ELISPOT	IFNg release	Positive
67210	TVWVFVPSIK	NS3	358	366	HLA class I	Dengue virus 2	ELISPOT	IFNg release	Positive
790	ADVKKDLISYGGGWK	NS3	70	84	HLA class I	Dengue virus 2	ELISPOT	IFNg release	Positive
8910	DKKKGKVVGL	NS3	1616	1624	HLA-B8	Dengue virus 2	ELISPOT	IFNg release	Positive
150289	ILLEFLLIV	NS4a	2202	2210	HLA-A*02:01	Dengue virus 2	ELISPOT	IFNg release	Positive
150461	MTQKARNAL	NS4a	2110	2118	HLA-B*07:02	Dengue virus 2	ELISPOT	IFNg release	Positive
150612	TAEAGGRAY	NS4a	2126	2134	HLA-B*35:01	Dengue virus 2	ELISPOT	IFNg release	Positive
150752	YVVIALLTV	NS4a	2229	2237	HLA-A*02:01	Dengue virus 2	ELISPOT	IFNg release	Positive
150753	YVVIALLTVV	NS4a	2229	2238	HLA-A*02:01	Dengue virus 2	ELISPOT	IFNg release	Positive
180620	LPTFMTQKAR	NS4a	2106	2115	HLA-B*35:01	Dengue virus 2	ELISPOT	IFNg release	Positive
180781	TPQDNQLTY	NS4a	2221	2229	HLA-B*35:01	Dengue virus 2	ELISPOT	IFNg release	Positive
185447	RNALDNLAVL	NS4a	2115	2124	HLA-B*08:01	Dengue virus 2	ELISPOT	IFNg release	Positive
2877	ALSELPETL	NS4a	2137	2145	HLA-A*02:01	Dengue virus 2	ELISPOT	IFNg release	Positive
37557	LLLTLLATV	NS4a	56	64	HLA-A2	Dengue virus 2	ICS	IFNg release	Positive
51562	QLTYVVIALL	NS4a	2226	2235	HLA-A*08:01	Dengue virus 2	ELISPOT	IFNg release	Positive
150147	ATVLMGLGK	NS4b	2315	2323	HLA-A*11:01	Dengue virus 2	multimer/tetramer	qualitative binding	Positive
150373	LLILCVTQV	NS4b	2416	2424	HLA-A*02:01	Dengue virus 2	ELISPOT	IFNg release	Positive
150377	LLLVAHYAI	NS4b	2355	2363	HLA-A*02:01	Dengue virus 2	ELISPOT	IFNg release	Positive
150387	LMGLGKGWPL	NS4b	2318	2327	HLA-B*02:01	Dengue virus 2	ELISPOT	IFNg release	Positive
150389	LMMRTTWAL	NS4b	2425	2433	HLA-B*08:01	Dengue virus 2	ELISPOT	IFNg release	Positive
150445	MLLILCVTQV	NS4b	2415	2424	HLA-A*02:01	Dengue virus 2	ELISPOT	IFNg release	Positive
150534	RPASAWTLY	NS4b	2276	2284	HLA-B*07:02	Dengue virus 2	ELISPOT	IFNg release	Positive
150639	TLYAVATTFV	NS4b	2282	2291	HLA-A*02:01	Dengue virus 2	ELISPOT	IFNg release	Positive
150679	VIDLDPIPY	NS4b	2395	2403	HLA-A*01:01	Dengue virus 2	ELISPOT	IFNg release	Positive
150686	VLMMRTTWA	NS4b	2424	2432	HLA-B*08:01	Dengue virus 2	ELISPOT	IFNg release	Positive
16757	FLLVAHYAI	NS4b	112	120	HLA-A2	Dengue virus 2	ICS	TNF release	Positive
180380	ATGPISLW	NS4b	2440	2448	HLA-B*58:01	Dengue virus 2	ELISPOT	IFNg release	Positive
180387	CEALTATGPISTLW	NS4b	191	205	HLA class I	Dengue virus 2	ELISPOT	IFNg release	Positive
180512	IANQATVLM	NS4b	2311	2319	HLA-B*35:01	Dengue virus 2	ELISPOT	IFNg release	Positive
180514	IAVSMANIF	NS4b	2460	2468	HLA-B*35:01	Dengue virus 2	ELISPOT	IFNg release	Positive
180601	LILCVTQVLM	NS4b	2417	2426	HLA-B*35:01	Dengue virus 2	ELISPOT	IFNg release	Positive
180789	TVIDLPIPYDPKFE	NS4b	2394	2408	HLA class I	Dengue virus 2	ELISPOT	IFNg release	Positive
180794	VATTFVTPM	NS4b	2286	2294	HLA-B*35:01	Dengue virus 2	ELISPOT	IFNg release	Positive
180802	VPLLAIGCY	NS4b	2334	2342	HLA-A*35:01	Dengue virus 2	ELISPOT	IFNg release	Positive
182747	CYSQVNPITL	NS4b	2341	2350	HLA-A*24:02	Dengue virus 2	ELISPOT	IFNg release	Positive
183670	IENSSVNVSL	NS4b	2299	2308	HLA-B*08:01	Dengue virus 2	ELISPOT	IFNg release	Positive
184439	LLILCVTQVL	NS4b	2416	2425	HLA-B*08:01	Dengue virus 2	ELISPOT	IFNg release	Positive
184814	MGLGKGWPL	NS4b	2319	2327	HLA-B*08:01	Dengue virus 2	ELISPOT	IFNg release	Positive
186002	TPMLRHSIE	NS4b	2292	2300	HLA-B*08:01	Dengue virus 2	ELISPOT	IFNg release	Positive
240933	TPMLRHSI	NS4b	2292	2299	HLA-B*07:02	Dengue virus 2	ELISPOT	IFNg release	Positive
35568	LEKTKKDL	NS4b	2249	2256	HLA-B8	Dengue virus 2	ELISPOT	IFNg release	Positive
10587	DVFFTPPEK	NS5	2622	2630	HLA class I	Dengue virus 2	ELISPOT	IFNg release	Positive
150227	FTMRHKKATY	NS5	2734	2743	HLA-B*35:01	Dengue virus 2	ELISPOT	IFNg release	Positive
150309	IPMSTYGVNWL	NS5	2605	2614	HLA-B*07:02	Dengue virus 2	ELISPOT	IFNg release	Positive
150541	RPTPRGTVM	NS5	3073	3081	HLA-B*07:02	Dengue virus 2	ELISPOT	IFNg release	Positive
150554	RTTWISHAK	NS5	3283	3291	HLA-A*11:01	Dengue virus 2	ELISPOT	IFNg release	Positive
150655	TPRMCTREEF	NS5	2881	2890	HLA-B*35:01	Dengue virus 2	ELISPOT	IFNg release	Positive
150698	VPYLGKREDQ	NS5	3327	3336	HLA-B*07:02	Dengue virus 2	ELISPOT	IFNg release	Positive
150750	YTDYMPMSMK	NS5	3370	3378	HLA-A*01:01	Dengue virus 2	ELISPOT	IFNg release	Positive
161186	RLTKPWVDVPMVTQ	NS5	326	340	HLA-B*55:02	Dengue virus 2	ICS	IFNg release	Positive
163027	NIQTAINQV	NS5	3353	3361	HLA-A*02:01	Dengue virus 2	ELISPOT	IFNg release	Positive-Low
163620	TITEEIAVQ	NS5	3127	3135	HLA-A*02:01	Dengue virus 2	ELISPOT	IFNg release	Positive
174066	CGGLKNVREVKGTLKGG	NS5	2582	2598	HLA-A2	Dengue virus 2	ICS	IFNg release	Positive
180437	EPKEGTKKLM	NS5	2856	2865	HLA-B*35:01	Dengue virus 2	ELISPOT	IFNg release	Positive
180443	ETACLGKSYA	NS5	3241	3250	HLA-A*26:01	Dengue virus 2	ELISPOT	IFNg release	Positive
180483	GKKKTPRMCTREEFT	NS5	2877	2891	HLA class I	Dengue virus 2	ELISPOT	IFNg release	Positive
180488	GPGEHEPIPM	NS5	2598	2607	HLA-B*35:01	Dengue virus 2	ELISPOT	IFNg release	Positive
180500	HKKLAEAIKLTQYN	NS5	3052	3066	HLA class I	Dengue virus 2	ELISPOT	IFNg release	Positive
180579	KSYAQMWSLMYFHRR	NS5	3247	3261	HLA class I	Dengue virus 2	ELISPOT	IFNg release	Positive
180582	KTWAYHGSYETKQTG	NS5	2792	2806	HLA class I	Dengue virus 2	ICS	IFNg release	Positive
180584	KVRKDIQQW	NS5	3177	3185	HLA-B*57:01	Dengue virus 2	ELISPOT	IFNg release	Positive
180606	LMKITAEWLW	NS5	2864	2873	HLA-B*53:01	Dengue virus 2	ELISPOT	IFNg release	Positive
180643	MAMTDITTFPGQQRVF	NS5	2832	2846	HLA class I	Dengue virus 2	ELISPOT	IFNg release	Positive
180667	MPMSKFRRE	NS5	3374	3383	HLA-B*53:01	Dengue virus 2	ELISPOT	IFNg release	Positive
180668	MPSVIEKMET	NS5	2678	2687	HLA-B*53:01	Dengue virus 2	ELISPOT	IFNg release	Positive
180675	MSTYGVNWLVRLOSGV	NS5	2607	2621	HLA class I	Dengue virus 2	ELISPOT	IFNg release	Positive
180681	NEEYTDYMPMSMKRFR	NS5	3367	3381	HLA class I	Dengue virus 2	ELISPOT	IFNg release	Positive
180758	SWHYDQDHPYKWTWAY	NS5	291	305	HLA class I	Dengue virus 2	ELISPOT	IFNg release	Positive
180774	TLRLNLVENWLNNN	NS5	2652	2666	HLA class I	Dengue virus 2	ELISPOT	IFNg release	Positive

180814	WAYHGSYET	NS5	2794	2802	HLA-B*35:01	Dengue virus 2	ELISPOT	IFNγ release	Positive
180817	WHYDQDHPY	NS5	2783	2791	HLA-B*35:01	Dengue virus 2	ELISPOT	IFNγ release	Positive
180828	YAQMWSLMYF	NS5	3249	3258	HLA-B*35:01	Dengue virus 2	ELISPOT	IFNγ release	Positive
182855	EAVEDGRFWE	NS5	2915	2924	HLA-B*58:01	Dengue virus 2	ELISPOT	IFNγ release	Positive
184131	KREDQWCGSL	NS5	3332	3341	HLA-B*08:01	Dengue virus 2	ELISPOT	IFNγ release	Positive
184234	KWKSRNLAL	NS5	2503	2511	HLA-B*08:01	Dengue virus 2	ELISPOT	IFNγ release	Positive
184373	LGKKKTIPRM	NS5	2876	2884	HLA-B*08:01	Dengue virus 2	ELISPOT	IFNγ release	Positive
184840	MLINRFTMR	NS5	2729	2737	HLA-B*08:01	Dengue virus 2	ELISPOT	IFNγ release	Positive
184957	MTTEDMLTVW	NS5	3295	3304	HLA-B*58:01	Dengue virus 2	ICS	IFNγ release	Positive
185491	RREEEAGVL	NS5	3381	3390	HLA-B*08:01	Dengue virus 2	ELISPOT	IFNγ release	Positive
185931	TKQTGSASSM	NS5	2802	2811	HLA-B*08:01	Dengue virus 2	ELISPOT	IFNγ release	Positive
186219	VEDGRFWEL	NS5	2917	2925	HLA-B*40:01	Dengue virus 2	ELISPOT	IFNγ release	Positive
190862	MVTQMAMTDTPFGQQR	NS5	2828	2844	HLA class I	Dengue virus 2	ICS	IFNγ release	Positive
31747	KLAEAIKFL	NS5	3054	3062	HLA-A*02:01	Dengue virus 2	ELISPOT	IFNγ release	Positive-Low
32939	KPWDIIPMV	NS5	2821	2829	HLA-B*55:02	Dengue virus 2	51 chromium	cytotoxicity	Positive
32941	KPWDVLPMPV	NS5	2821	2829	HLA class I	Dengue virus 2	51 chromium	cytotoxicity	Positive
32942	KPWDVLPTV	NS5	2821	2829	HLA class I	Dengue virus 2	51 chromium	cytotoxicity	Positive
32943	KPWDVVPMPV	NS5	2821	2829	HLA-B*51:01	Dengue virus 2	51 chromium	cytotoxicity	Positive
53476	REDQWCGSL	NS5	3333	3341	HLA-B*40:01	Dengue virus 2	ELISPOT	IFNγ release	Positive
539144	CVVKPLDDRFASALTAL	NS5	3156	3172	HLA class I	Dengue virus 2	ICS	IFNγ release	Positive
539436	ISGDDCVVKPLDDRFA	NS5	3151	3166	HLA class I	Dengue virus 2	ICS	IFNγ release	Positive
69671	VLNPMPSV	NS5	2673	2681	HLA-A*02:01	Dengue virus 2	ELISPOT	IFNγ release	Positive
73428	YAQMWSLMY	NS5	3249	3257	HLA-B*15:01	Dengue virus 2	ELISPOT	IFNγ release	Positive
74305	YILRDVSKK	NS5	517	525	HLA class I	Dengue virus 2	ELISPOT	IFNγ release	Positive

CD8 DENV-3 Epitopes

Epitope_ID	AminoAcid_Seq	Protein_Name	Start	End	Allele	Serotype	Method/Technique	Assay Group	Qualitative Measure
180390	CLMMMLPATL	C	104	113	HLA-A*02:01	Dengue virus 3	ELISPOT	IFNg release	Positive
180577	KSGAIKVLK	C	74	82	HLA-A*11:01	Dengue virus 3	ELISPOT	IFNg release	Positive
180609	LMMMLPATL	C	105	113	HLA-A*02:01	Dengue virus 3	ELISPOT	IFNg release	Positive
184260	LAIPPTAGVL	C	57	66	HLA-B*08:01	Dengue virus 3	ELISPOT	IFNg release	Positive
184264	LAKRFSRGL	C	29	37	HLA-B*08:01	Dengue virus 3	ELISPOT	IFNg release	Positive
184265	LAKRFSRGLL	C	29	38	HLA-B*08:01	Dengue virus 3	ELISPOT	IFNg release	Positive
184845	MLKRVNRNV	C	15	23	HLA-B*08:01	Dengue virus 3	ELISPOT	IFNg release	Positive
185260	QLAKRFSRG	C	28	36	HLA-B*08:01	Dengue virus 3	ELISPOT	IFNg release	Positive
180464	FTILALFLAH	PreM	247	256	HLA-B*35:01	Dengue virus 3	ELISPOT	IFNg release	Positive
180504	HPGFTILALF	PreM	244	253	HLA-B*35:01	Dengue virus 3	ELISPOT	IFNg release	Positive
184658	LTQKVIFIL	PreM	262	271	HLA-B*08:01	Dengue virus 3	ELISPOT	IFNg release	Positive
185685	SLLFKTASG	PreM	136	144	HLA-B*08:01	Dengue virus 3	ELISPOT	IFNg release	Positive
13119	ELKGMSYAM	E	155	163	HLA-B*08:01	Dengue virus 3	ELISPOT	IFNg release	Positive
15796	FFDLPLPWT	E	211	219	HLA-A2	Dengue virus 3	ICS	IFNg release	Positive
180613	LPEEQDQNY	E	82	90	HLA-B*35:01	Dengue virus 3	ELISPOT	IFNg release	Positive
180657	MLVTPSMTM	E	273	281	HLA-B*35:01	Dengue virus 3	ELISPOT	IFNg release	Positive
183793	IMKIGIGVLL	E	452	461	HLA-B*08:01	Dengue virus 3	ELISPOT	IFNg release	Positive
183843	IQNSGGTSIF	E	131	140	HLA-B*15:01	Dengue virus 3	ELISPOT	IFNg release	Positive
184299	LATLRKLCI	E	53	61	HLA-B*08:01	Dengue virus 3	ELISPOT	IFNg release	Positive
184412	LKGMSYAMCL	E	156	165	HLA-B*08:01	Dengue virus 3	ELISPOT	IFNg release	Positive
184536	LPEYGLGLE	E	453	462	HLA-B*35:01	Dengue virus 3	ELISPOT	IFNg release	Positive
184568	LPWTSGATT	E	496	504	HLA-B*35:01	Dengue virus 3	ELISPOT	IFNg release	Positive
184924	MSYAMCTNTF	E	575	584	HLA-B*35:01	Dengue virus 3	ELISPOT	IFNg release	Positive
184965	MVHQIFGSAY	E	713	722	HLA-B*15:01	Dengue virus 3	ELISPOT	IFNg release	Positive
185419	RLKMDKLEL	E	148	156	HLA-B*08:01	Dengue virus 3	ELISPOT	IFNg release	Positive
186029	TPTWNRKEL	E	226	234	HLA-B*07:02	Dengue virus 3	ELISPOT	IFNg release	Positive-Low
186470	WIMKIGIGVL	E	451	460	HLA-B*08:01	Dengue virus 3	ELISPOT	IFNg release	Positive
589817	SGATWVDVLEHGCV	E	268	283	HLA class I	Dengue virus 3	ICS	IFNg release	Positive-High
150537	RPGYHTQTA	NS1	1030	1038	HLA-B*07:02	Dengue virus 3	ELISPOT	IFNg release	Positive
150546	RSCTLPLRY	NS1	1087	1096	HLA-A*01:01	Dengue virus 3	ELISPOT	IFNg release	Positive
180738	RYMGEDGCWY	NS1	1095	1104	HLA-A*24:02	Dengue virus 3	ELISPOT	IFNg release	Positive
182939	EKEENMVKSL	NS1	1113	1122	HLA-B*08:01	Dengue virus 3	ELISPOT	IFNg release	Positive
183723	IKLTVVVGDI	NS1	857	866	HLA-B*08:01	Dengue virus 3	ELISPOT	IFNg release	Positive
184585	LRTTIVSGKL	NS1	64	73	HLA-B*08:01	Dengue virus 3	ELISPOT	IFNg release	Positive
185464	RPINEKEENM	NS1	1109	1118	HLA-B*35:01	Dengue virus 3	ELISPOT	IFNg release	Positive
185573	RYMGEDGCW	NS1	1095	1103	HLA-A*24:02	Dengue virus 3	ELISPOT	IFNg release	Positive
185734	SPKRLATAI	NS1	811	819	HLA-B*08:01	Dengue virus 3	ELISPOT	IFNg release	Positive
183395	GKKHMIAGVL	NS2a	1153	1162	HLA-B*08:01	Dengue virus 3	ELISPOT	IFNg release	Positive
183587	HMIAGVFTF	NS2a	368	377	HLA-A*24:02	Dengue virus 3	ELISPOT	IFNg release	Positive
184254	LAILFEEVM	NS2a	1140	1148	HLA-B*35:01	Dengue virus 3	ELISPOT	IFNg release	Positive
184819	MIAGVFTF	NS2a	369	377	HLA-B*35:01	Dengue virus 3	ELISPOT	IFNg release	Positive
185978	TMGVLCILAI	NS2a	1134	1143	HLA-B*08:01	Dengue virus 3	ELISPOT	IFNg release	Positive
186175	TWRDMAHTLI	NS2a	1174	1183	HLA-A*24:02	Dengue virus 3	ELISPOT	IFNg release	Positive
180622	LPVWLAHKVA	NS3	226	235	HLA-B*35:01	Dengue virus 3	ELISPOT	IFNg release	Positive
182917	EKFDAAGR	NS3	2083	2091	HLA-A*33:01	Dengue virus 3	ELISPOT	IFNg release	Positive
184065	KLNDWDFV	NS3	399	407	HLA-A*02:01	Dengue virus 3	ELISPOT	IFNg release	Positive-High
186234	VEIWTKEGK	NS3	2053	2062	HLA-B*40:01	Dengue virus 3	ELISPOT	IFNg release	Positive
19434	GESRKTFFE	NS3	2001	2009	HLA-B7	Dengue virus 3	51 chromium	cytotoxicity	Positive
19435	GESRKTVEL	NS3	211	220	HLA-B*40:01	Dengue virus 3	ICS	IFNg release	Positive
22820	GTSGPSIINR	NS3	133	142	HLA-A*11:01	Dengue virus 3	51 chromium	cytotoxicity	Positive
22821	GTSGPSIINRE	NS3	133	143	HLA-A11	Dengue virus 3	ICS	IFNg release	Positive
3124	AMKGLPIRY	NS3	1708	1716	HLA-B62	Dengue virus 3	51 chromium	cytotoxicity	Positive
34605	KYTDKRWCF	NS3	240	248	HLA-A24	Dengue virus 3	ELISPOT	IFNg release	Positive
590435	TRVVAEMEAMKGLPI	NS3	1698	1714	HLA class I	Dengue virus 3	ICS	IFNg release	Positive-Low
62183	SVKKDLISY	NS3	71	79	HLA-B62	Dengue virus 3	51 chromium	cytotoxicity	Positive
183165	FFMMVLLIPE	NS4a	2205	2214	HLA-A*33:01	Dengue virus 3	ELISPOT	IFNg release	Positive
37494	LLGLMILL	NS4a	2148	2156	HLA-A2	Dengue virus 3	ICS	IFNg release	Positive
180381	ATGPITLW	NS4b	2439	2447	HLA-B*58:01	Dengue virus 3	ELISPOT	IFNg release	Positive
180788	TKRDLGMSK	NS4b	2250	2259	HLA-A*11:01	Dengue virus 3	ELISPOT	IFNg release	Positive
183796	IMKSVGTGK	NS4b	2481	2489	HLA-A*03:01	Dengue virus 3	ELISPOT	IFNg release	Positive
37534	LLLMRTSWA	NS4b	2423	2431	HLA-A2	Dengue virus 3	biological activity	proliferation	Positive
69612	VLLLVTHYA	NS4b	2353	2361	HLA-A2	Dengue virus 3	ICS	IFNg release	Positive
1067501	KPIDDRFAN	NS5	3158	3166	HLA-B*07:02	Dengue virus 3	ELISPOT	IFNg release	Positive
180572	KPRLCTREEF	NS5	2879	2888	HLA-B*07:02	Dengue virus 3	ELISPOT	IFNg release	Positive
180650	MEITAEWLW	NS5	2863	2871	HLA-B*58:01	Dengue virus 3	ELISPOT	IFNg release	Positive
180678	MVSRLLLNR	NS5	2723	2731	HLA-A*11:01	Dengue virus 3	ELISPOT	IFNg release	Positive
180728	RPRLCTREEF	NS5	2879	2888	HLA-B*07:02	Dengue virus 3	ELISPOT	IFNg release	Positive
180737	RYLEFEALGF	NS5	2971	2980	HLA-A*24:02	Dengue virus 3	ELISPOT	IFNg release	Positive
180801	VMGITAEWLW	NS5	2862	2871	HLA-B*53:01	Dengue virus 3	ELISPOT	IFNg release	Positive
182553	ALLALNDMGK	NS5	3167	3176	HLA-A*03:01	Dengue virus 3	ELISPOT	IFNg release	Positive
185710	SMINGVVKL	NS5	318	326	HLA-A*02:01	Dengue virus 3	ELISPOT	IFNg release	Positive
186127	TTWEDVPYL	NS5	3321	3329	HLA-A*02:01	Dengue virus 3	ELISPOT	IFNg release	Positive
186215	VEDEDFWKL	NS5	2915	2923	HLA-B*40:01	Dengue virus 3	ELISPOT	IFNg release	Positive

32944	KPWDVVPTV	NS5	2819	2827	HLA class I	Dengue virus 3	51 chromium	cytotoxicity	Positive
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CD8 DENV-4 Epitopes

Epitope_ID	AminoAcid_Seq	Protein_Name	Start	End	Allele	Serotype	Method/Technique	Assay Group	Qualitative Measure
180541	ITLLCLIPTV	C	102	111	HLA-A*02:01	Dengue virus 4	ELISPOT	IFNg release	Positive
180810	VTYECPLL	PreM	162	170	HLA-A*02:01	Dengue virus 4	ELISPOT	IFNg release	Positive
182707	CNLTSTWVMY	PreM	181	190	HLA-A*30:02	Dengue virus 4	ELISPOT	IFNg release	Positive
182971	EMCEDTVTY	PreM	156	164	HLA-B*35:01	Dengue virus 4	ELISPOT	IFNg release	Positive
186303	VLMMLVAPSY	PreM	17	26	HLA-B*15:01	Dengue virus 4	ELISPOT	IFNg release	Positive
185147	NYKERMVTF	E	511	519	HLA-A*24:02	Dengue virus 4	ELISPOT	IFNg release	Positive
185817	SWMIRILIGF	E	161	170	HLA-A*24:02	Dengue virus 4	ELISPOT	IFNg release	Positive
583701	GVSGGAWVDLVLEHGGCV	E	14	31	HLA class I	Dengue virus 4	ICS	IFNg release	Positive-Low
183667	IEKASLIEV	NS1	986	994	HLA-B*40:01	Dengue virus 4	ELISPOT	IFNg release	Positive
185050	NFLEVEDYGF	NS1	925	934	HLA-A*24:02	Dengue virus 4	ELISPOT	IFNg release	Positive
240130	PPASDLKYSW	NS1	880	889	HLA-B*53:01	Dengue virus 4	ELISPOT	IFNg release	Positive
167725	AMTTTSLIPHDLMELIDGIS	NS2a	50	69	HLA class I	Dengue virus 4	ELISPOT	IFNg release	Positive
182562	ALPVYLMTL	NS2a	1329	1337	HLA-A*02:01	Dengue virus 4	ELISPOT	IFNg release	Positive
183818	IPHDLMELI	NS2a	1241	1249	HLA-B*53:01	Dengue virus 4	ELISPOT	IFNg release	Positive
184390	LIDGISLGL	NS2a	1248	1256	HLA-A*01:01	Dengue virus 4	ELISPOT	IFNg release	Positive
184566	LPVYLMTLMK	NS2a	1330	1339	HLA-B*35:01	Dengue virus 4	ELISPOT	IFNg release	Positive
184591	LSIPHDLMEF	NS2a	1239	1248	HLA-A*01:01	Dengue virus 4	ELISPOT	IFNg release	Positive
182901	EETNMITLL	NS2b	1434	1442	HLA-B*40:01	Dengue virus 4	ELISPOT	IFNg release	Positive
186584	YPLAIPVTM	NS2b	1454	1462	HLA-B*53:01	Dengue virus 4	ELISPOT	IFNg release	Positive
239411	ALWVYVQVK	NS2b	1463	1471	HLA-A*03:01	Dengue virus 4	ELISPOT	IFNg release	Positive
418991	IPVTMALWY	NS2b	1458	1466	HLA-B*35:01	Dengue virus 4	ELISPOT	IFNg release	Positive
156711	LAPTRVVAEMEEAL	NS3	1695	1709	HLA-B7	Dengue virus 4	51 chromium	cytotoxicity	Positive
180473	GEFRLRGEQR	NS3	1995	2004	HLA-B*40:01	Dengue virus 4	ELISPOT	IFNg release	Positive
180475	GEQRKTFVEL	NS3	2001	2010	HLA-B*40:01	Dengue virus 4	ELISPOT	IFNg release	Positive
180640	MALKDFKEF	NS3	2079	2087	HLA-B*35:01	Dengue virus 4	ELISPOT	IFNg release	Positive
180648	MEGVFHTMW	NS3	1516	1524	HLA-B*44:03	Dengue virus 4	ELISPOT	IFNg release	Positive
180778	TPEGIPTLF	NS3	1974	1983	HLA-B*07:02	Dengue virus 4	ELISPOT	IFNg release	Positive
180843	YPKTKLTDWD	NS3	1868	1877	HLA-B*35:01	Dengue virus 4	ELISPOT	IFNg release	Positive
180850	YTEGIPTL	NS3	1973	1982	HLA-A*02:06	Dengue virus 4	ELISPOT	IFNg release	Positive
182563	ALSEGVYRI	NS3	1491	1499	HLA-A*02:01	Dengue virus 4	ELISPOT	IFNg release	Positive
182919	EFRLRGEQR	NS3	1996	2004	HLA-A*33:01	Dengue virus 4	ELISPOT	IFNg release	Positive
183231	FPQSNSPIED	NS3	1799	1808	HLA-B*35:01	Dengue virus 4	ELISPOT	IFNg release	Positive
183338	GEIGAVTLDF	NS3	1595	1604	HLA-B*44:03	Dengue virus 4	ELISPOT	IFNg release	Positive
183407	GLFGKTVQGV	NS3	1503	1512	HLA-A*02:01	Dengue virus 4	ELISPOT	IFNg release	Positive
183427	GLYGNKVVTK	NS3	1622	1631	HLA-A*03:01	Dengue virus 4	ELISPOT	IFNg release	Positive
184079	KLTDWDFVV	NS3	398	406	HLA-A*02:01	Dengue virus 4	ELISPOT	IFNg release	Positive
186008	TPPGATDPF	NS3	1791	1799	HLA-B*35:01	Dengue virus 4	ELISPOT	IFNg release	Positive
186347	VPNYNLIVM	NS3	1749	1757	HLA-B*35:01	Dengue virus 4	ELISPOT	IFNg release	Positive
186602	YSDPLALRE	NS3	2077	2085	HLA-A*01:01	Dengue virus 4	ELISPOT	IFNg release	Positive
195838	PNYNLIVMDEAHFTD	NS3	1750	1764	HLA class I	Dengue virus 4	ICS	IFNg release	Positive
22822	GTSGSPINRK	NS3	133	143	HLA-A11	Dengue virus 4	51 chromium	cytotoxicity	Positive
239768	GTSGSPINRK	NS3	1607	1616	HLA-A*03:01	Dengue virus 4	ELISPOT	IFNg release	Positive
34918	LAPTRVVAEME	NS3	221	232	HLA-B7	Dengue virus 4	51 chromium	cytotoxicity	Positive
539058	AHFTDPSSVAARGYST	NS3	1760	1776	HLA class I	Dengue virus 4	ICS	IFNg release	Positive
539576	LIVMDEAHFTDPSSVAA	NS3	1754	1770	HLA class I	Dengue virus 4	ICS	IFNg release	Positive
540029	VEMGEAAAIFMTATPPG	NS3	1778	1794	HLA class I	Dengue virus 4	ICS	IFNg release	Positive
581940	APTRVVAEMEEALRGL	NS3	1558	1574	HLA class I	Dengue virus 4	ICS	IFNg release	Positive-Low
62616	SYKDREWCF	NS3	389	397	HLA-A24	Dengue virus 4	ELISPOT	IFNg release	Positive
65552	TPEGIPTL	NS3	500	508	HLA-B*35:01	Dengue virus 4	51 chromium	cytotoxicity	Positive
180596	LETMLVALL	NS4a	2144	2153	HLA-B*40:01	Dengue virus 4	ELISPOT	IFNg release	Positive
182508	AIASVGLLW	NS4a	2179	2188	HLA-B*44:02	Dengue virus 4	ELISPOT	IFNg release	Positive
182926	EIASLPTYL	NS4a	2101	2109	HLA-A*68:02	Dengue virus 4	ELISPOT	IFNg release	Positive
183650	IAVASGLLW	NS4a	2180	2188	HLA-B*57:01	Dengue virus 4	ELISPOT	IFNg release	Positive
184531	LPSELETML	NS4a	2140	2149	HLA-B*35:01	Dengue virus 4	ELISPOT	IFNg release	Positive
185881	TEIASLPTYL	NS4a	2100	2109	HLA-B*40:01	Dengue virus 4	ELISPOT	IFNg release	Positive
186620	YVILTILT	NS4a	2228	2236	HLA-A*24:02	Dengue virus 4	ELISPOT	IFNg release	Positive
42083	MLVALLGAM	NS4a	56	64	HLA-A2	Dengue virus 4	ICS	IFNg release	Positive
136826	CYSQVNPPTL	NS4b	2337	2346	HLA-A*24:02	Dengue virus 4	ELISPOT	IFNg release	Positive
150647	TPMLRHTIEN	NS4b	2288	2297	HLA-B*07:02	Dengue virus 4	ELISPOT	IFNg release	Positive
180379	ATGPILTLLW	NS4b	2436	2444	HLA-B*58:01	Dengue virus 4	ELISPOT	IFNg release	Positive
180383	ATGPVLTLLW	NS4b	2436	2444	HLA-B*58:01	Dengue virus 4	ELISPOT	IFNg release	Positive
180587	LATGPVLTLLW	NS4b	2435	2444	HLA-B*53:01	Dengue virus 4	ELISPOT	IFNg release	Positive
180764	TETTLDDVDL	NS4b	2262	2271	HLA-B*40:01	Dengue virus 4	ELISPOT	IFNg release	Positive
180803	VPLLAMGCY	NS4b	2330	2338	HLA-B*35:01	Dengue virus 4	ELISPOT	IFNg release	Positive
183672	IENTSANLSL	NS4b	2295	2304	HLA-B*40:01	Dengue virus 4	ELISPOT	IFNg release	Positive
184453	LLLMRTTWAF	NS4b	2420	2429	HLA-A*24:02	Dengue virus 4	ELISPOT	IFNg release	Positive
184713	LYAVATTIL	NS4b	2279	2287	HLA-A*24:02	Dengue virus 4	ELISPOT	IFNg release	Positive
186330	VMLLVHYAI	NS4b	2351	2359	HLA-A*24:02	Dengue virus 4	ELISPOT	IFNg release	Positive
37535	LLLMRTTWA	NS4b	76	84	HLA-A2	Dengue virus 4	ICS	TNF release	Positive
40472	LVMLLVHYA	NS4b	6	14	HLA-A2	Dengue virus 4	ICS	IFNg release	Positive
1067215	HSWEDIPLY	NS5	3319	3327	HLA-A*02:01	Dengue virus 4	ELISPOT	IFNg release	Positive
150548	RSNAAIGAVF	NS5	2891	2900	HLA-B*15:01	Dengue virus 4	ELISPOT	IFNg release	Positive
180684	NPRLCCTREEF	NS5	2877	2886	HLA-B*07:02	Dengue virus 4	ELISPOT	IFNg release	Positive
180718	REDLWCGSL	NS5	3330	3338	HLA-B*40:01	Dengue virus 4	ELISPOT	IFNg release	Positive

183353	GESSSNPTI	NS5	2635	2643	HLA-B*44:02	Dengue virus 4	ELISPOT	IFN γ release	Positive
183570	HEMYWVSGV	NS5	2703	2711	HLA-B*44:02	Dengue virus 4	ELISPOT	IFN γ release	Positive
184051	KLGEFGRK	NS5	2948	2956	HLA-A*03:01	Dengue virus 4	ELISPOT	IFN γ release	Positive
184130	KREDLWCGSL	NS5	3329	3338	HLA-B*08:01	Dengue virus 4	ELISPOT	IFN γ release	Positive
184375	LGKSYAQMWW	NS5	3246	3254	HLA-B*57:01	Dengue virus 4	ELISPOT	IFN γ release	Positive
184954	MTTEDMLKVW	NS5	3292	3301	HLA class I	Dengue virus 4	ICS	IFN γ release	Positive
185232	QEEHKETWHY	NS5	2772	2781	HLA-B*44:02	Dengue virus 4	ELISPOT	IFN γ release	Positive
186453	WEPKSGWKNW	NS5	3182	3191	HLA-B*44:02	Dengue virus 4	ELISPOT	IFN γ release	Positive
186550	YDQENPYRTW	NS5	2781	2790	HLA-B*44:02	Dengue virus 4	ELISPOT	IFN γ release	Positive
186640	YYMATLKNV	NS5	2576	2584	HLA-A*24:02	Dengue virus 4	ELISPOT	IFN γ release	Positive
186641	YYMATLKNT	NS5	2576	2585	HLA-A*24:02	Dengue virus 4	ELISPOT	IFN γ release	Positive
419017	MPAMKRYSA	NS5	3371	3380	HLA-B*35:01	Dengue virus 4	ELISPOT	IFN γ release	Positive
419048	SPRLCTREEF	NS5	2877	2886	HLA-B*07:02	Dengue virus 4	ELISPOT	IFN γ release	Positive
539149	DCVVKPLDERFSTLLF	NS5	3152	3168	HLA class I	Dengue virus 4	ICS	IFN γ release	Positive
539656	MAISGDDCVVKPLDERF	NS5	3146	3162	HLA class I	Dengue virus 4	ICS	IFN γ release	Positive
539703	MVTQLAMTDTTPFGQQR	NS5	2824	2840	HLA class I	Dengue virus 4	ICS	IFN γ release	Positive

Supplementary Table S2. Dengue polyprotein sequences of circulating viruses from India.

Details of the 107 full length sequences of circulating dengue viruses from India are shown.

NCBI_ID	Strain_Name	Host	Date	Continent	Country	Prot_Name	Virus_Type
UBI73847.1	FT_MD_169_R4_DENV1D_III_India	Human	2018-01-01	Asia	India	polyprotein	Dengue virus 1
ASD49619.1	3083	Human	2014-01-01	Asia	India	polyprotein	Dengue virus 1
AFZ40118.1	DENV-1/IND/55290/2005	Human	2005-01-01	Asia	India	polyprotein	Dengue virus 1
ANC57581.1	DENV1-16687	Human	2011-01-01	Asia	India	polyprotein	Dengue virus 1
QCZ25006.1	FT_DNS1_295_S13_R3	Human	2016-10-06	Asia	India	polyprotein	Dengue virus 1
QCZ25005.1	FT_DNS1_311_S14_R3	Human	2016-10-05	Asia	India	polyprotein	Dengue virus 1
QCZ25004.1	FT_DNS1_323_S15_R3	Human	2016-10-07	Asia	India	polyprotein	Dengue virus 1
QCZ25002.1	FT_DNS1_442_S18_R3	Human	2016-10-20	Asia	India	polyprotein	Dengue virus 1
QCZ25000.1	FT_DNS1_449_S21_R3	Human	2016-08-10	Asia	India	polyprotein	Dengue virus 1
QCZ24998.1	FT_DNS1_456_S24_R3	Human	2016-10-24	Asia	India	polyprotein	Dengue virus 1
QCZ24995.1	FT_DNS1_492_S91_R3	Human	2016-04-09	Asia	India	polyprotein	Dengue virus 1
QCZ24994.1	FT_DNS1_495_S92_R3	Human	2016-10-27	Asia	India	polyprotein	Dengue virus 1
QBA57534.1	MCVR0543AC/2017	Human	2017-04-26	Asia	India	polyprotein	Dengue virus 1
QBA57538.1	MCVR1715AD/2017	Human	2017-10-22	Asia	India	polyprotein	Dengue virus 1
AJP08954.1	NIV_K130706770_India	Human	2013-01-07	Asia	India	polyprotein	Dengue virus 1
QCE20686.1	R1_BC03_SP9_22042017	Human	2017-04-22	Asia	India	polyprotein	Dengue virus 1
AXX75607.1	R1_J10	Human	2016-01-01	Asia	India	polyprotein	Dengue virus 1
AXX75606.1	R1_J47	Human	2016-01-01	Asia	India	polyprotein	Dengue virus 1
AFN54940.1	RGC8294	Human	2007-07-26	Asia	India	polyprotein	Dengue virus 1
AFN54941.1	RGC8419	Human	2008-10-23	Asia	India	polyprotein	Dengue virus 1
AFN54942.1	RGC8585	Human	2009-04-05	Asia	India	polyprotein	Dengue virus 1
AFN54943.1	RGC8592	Human	2009-04-06	Asia	India	polyprotein	Dengue virus 1
AHZ44537.1	RR107	Human	2011-01-01	Asia	India	polyprotein	Dengue virus 1
AFZ40223.1	RR121	Human	2010-01-01	Asia	India	polyprotein	Dengue virus 1
AFZ40224.1	RR57	Human	2009-01-01	Asia	India	polyprotein	Dengue virus 1
QCE20685.1	SI290	Human	2016-01-09	Asia	India	polyprotein	Dengue virus 1
AXX75608.1	T24_S68	Human	2012-01-01	Asia	India	polyprotein	Dengue virus 1
AXX75609.1	T28_S69	Human	2012-01-01	Asia	India	polyprotein	Dengue virus 1
ASD49618.1	UOH_21749	Human	2014-01-01	Asia	India	polyprotein	Dengue virus 1
AFZ40227.1	1392	Human	2009-01-01	Asia	India	polyprotein	Dengue virus 2
AYJ72763.1	Cosmopolitan_1	Human	2012-11-08	Asia	India	polyprotein	Dengue virus 2
AYJ72772.1	Cosmopolitan_10	Human	2012-01-01	Asia	India	polyprotein	Dengue virus 2
AYJ72773.1	Cosmopolitan_11	Human	2014-10-28	Asia	India	polyprotein	Dengue virus 2
AYJ72774.1	Cosmopolitan_12	Human	2013-08-19	Asia	India	polyprotein	Dengue virus 2
AYJ72775.1	Cosmopolitan_13	Human	2013-09-04	Asia	India	polyprotein	Dengue virus 2
AYJ72776.1	Cosmopolitan_14	Human	2014-09-16	Asia	India	polyprotein	Dengue virus 2
AYJ72777.1	Cosmopolitan_15	Human	2015-09-09	Asia	India	polyprotein	Dengue virus 2
AYJ72778.1	Cosmopolitan_16	Human	2015-08-31	Asia	India	polyprotein	Dengue virus 2
AYJ72779.1	Cosmopolitan_17	Human	2014-10-25	Asia	India	polyprotein	Dengue virus 2
AYJ72780.1	Cosmopolitan_18	Human	2013-09-09	Asia	India	polyprotein	Dengue virus 2
AYJ72764.1	Cosmopolitan_2	Human	2014-01-01	Asia	India	polyprotein	Dengue virus 2
AYJ72765.1	Cosmopolitan_3	Human	2013-08-30	Asia	India	polyprotein	Dengue virus 2
AYJ72766.1	Cosmopolitan_4	Human	2014-09-22	Asia	India	polyprotein	Dengue virus 2
AYJ72767.1	Cosmopolitan_5	Human	2014-11-07	Asia	India	polyprotein	Dengue virus 2
AYJ72768.1	Cosmopolitan_6	Human	2012-10-08	Asia	India	polyprotein	Dengue virus 2
AYJ72769.1	Cosmopolitan_7	Human	2012-10-19	Asia	India	polyprotein	Dengue virus 2
AYJ72770.1	Cosmopolitan_8	Human	2012-10-19	Asia	India	polyprotein	Dengue virus 2
AYJ72771.1	Cosmopolitan_9	Human	2012-09-24	Asia	India	polyprotein	Dengue virus 2
ACQ44493.1	DENV-2/IN/BID-V2961/2006	Human	2006-01-01	Asia	India	polyprotein	Dengue virus 2
AFZ40121.1	DENV-2/IND/053598/2005	Human	2005-01-01	Asia	India	polyprotein	Dengue virus 2
ANC57597.1	DENV2-2627	Human	2006-01-01	Asia	India	polyprotein	Dengue virus 2
QCZ24979.1	FT_AJ_27_S45_R3	Human	2017-10-05	Asia	India	polyprotein	Dengue virus 2
QCZ24978.1	FT_DNS1_101_S4_R3	Human	2016-09-08	Asia	India	polyprotein	Dengue virus 2
QCZ24977.1	FT_DNS1_105_S5_R3	Human	2016-09-08	Asia	India	polyprotein	Dengue virus 2
QCZ24976.1	FT_DNS1_251_S9_R3	Human	2016-09-11	Asia	India	polyprotein	Dengue virus 2
QCZ24974.1	FT_DNS1_440_S17_R3	Human	2016-10-19	Asia	India	polyprotein	Dengue virus 2
QCZ24973.1	FT_DNS1_443_S19_R3	Human	2016-10-20	Asia	India	polyprotein	Dengue virus 2
QCZ24971.1	FT_DNS1_468_S30_R3	Human	2016-10-05	Asia	India	polyprotein	Dengue virus 2
QCZ24970.1	FT_DNS1_469_S31_R3	Human	2016-10-13	Asia	India	polyprotein	Dengue virus 2
QCZ24969.1	FT_DNS1_472_S32_R3	Human	2016-10-13	Asia	India	polyprotein	Dengue virus 2
QCZ24966.1	FT_J221_S36_R2	Human	2016-08-26	Asia	India	polyprotein	Dengue virus 2
QCZ24965.1	FT_J250_S45_R2	Human	2016-08-31	Asia	India	polyprotein	Dengue virus 2
QBA57539.1	MCVR1233AD/2017	Human	2017-10-12	Asia	India	polyprotein	Dengue virus 2
QBA57535.1	MCVR2188AB/2016	Human	2016-10-26	Asia	India	polyprotein	Dengue virus 2
QBA57537.1	MCVR7291AD/2018	Human	2018-04-23	Asia	India	polyprotein	Dengue virus 2

AFZ40226.1	Od2112	Human	2011-01-01	Asia	India	polyprotein	Dengue virus 2
AI199332.1	P23085 INDI-60	Human	2007-04-01	Asia	India	polyprotein	Dengue virus 2
AYJ72757.1	R1_J17_DENV2	Human	2016-01-01	Asia	India	flavivirus polyprotein	Dengue virus 2
AYJ72758.1	R1_J22_DENV2	Human	2016-01-01	Asia	India	flavivirus polyprotein	Dengue virus 2
AYJ72759.1	R1_J30_DENV2	Human	2016-01-01	Asia	India	flavivirus polyprotein	Dengue virus 2
AYJ72760.1	R1_J36_DENV2	Human	2016-01-01	Asia	India	flavivirus polyprotein	Dengue virus 2
AYJ72761.1	R1_J45_DENV2	Human	2016-01-01	Asia	India	flavivirus polyprotein	Dengue virus 2
AYJ72762.1	R1_J46_DENV2	Human	2016-01-01	Asia	India	flavivirus polyprotein	Dengue virus 2
ARO52692.1	RGCB880/2010	Human	2010-09-01	Asia	India	polyprotein	Dengue virus 2
ARO52693.1	RGCB921/2011	Human	2011-01-03	Asia	India	polyprotein	Dengue virus 2
AFZ40225.1	RR44	Human	2009-01-01	Asia	India	polyprotein	Dengue virus 2
AYE66920.1	UoH_583351	Human	2014-01-01	Asia	India	polyprotein	Dengue virus 2
AYE66919.1	UoH_58620	Human	2014-01-01	Asia	India	polyprotein	Dengue virus 2
ADM63678.1	DEL-72	Human	2008-01-01	Asia	India	polyprotein	Dengue virus 3
AFZ40126.1	DENV-3/IND/58760/2005	Human	2005-01-01	Asia	India	polyprotein	Dengue virus 3
AFZ40127.1	DENV-3/IND/59826/2005	Human	2005-01-01	Asia	India	polyprotein	Dengue virus 3
ANC57607.1	DENV3-2994	Human	2009-01-01	Asia	India	polyprotein	Dengue virus 3
ANC57612.1	DENV3-9468	Human	2011-01-01	Asia	India	polyprotein	Dengue virus 3
QCZ25021.1	FT_AJ_39_S47_R3	Human	2017-10-12	Asia	India	polyprotein	Dengue virus 3
QCZ25020.1	FT_DNS1_473_S33_R3	Human	2016-10-14	Asia	India	polyprotein	Dengue virus 3
QCZ25019.1	FT_DNS1_494_S54_R3	Human	2016-08-24	Asia	India	polyprotein	Dengue virus 3
QCZ25016.1	FT_J226_S40_R2	Human	2016-08-26	Asia	India	polyprotein	Dengue virus 3
QCZ25017.1	FT_J92_S12_R2	Human	2016-08-10	Asia	India	polyprotein	Dengue virus 3
QBA57533.1	MCVR7048AB/2017	Human	2017-02-21	Asia	India	polyprotein	Dengue virus 3
QEP41653.1	MD_33_R4_DENV3_III_India	Human	2017-10-27	Asia	India	polyprotein	Dengue virus 3
ACV04798.1	ND143	Human	2007-01-01	Asia	India	polyprotein	Dengue virus 3
AXX75610.1	R1_J18	Human	2016-01-01	Asia	India	polyprotein	Dengue virus 3
AXX75612.1	R1_J29	Human	2016-01-01	Asia	India	polyprotein	Dengue virus 3
AXX75611.1	R1_J51	Human	2016-01-01	Asia	India	polyprotein	Dengue virus 3
AML29863.1	Rajasthan.India/Balotra 87-s/2013	Human	2013-11-11	Asia	India	polyprotein	Dengue virus 3
AXX75613.1	T38_S72	Human	2013-01-01	Asia	India	polyprotein	Dengue virus 3
QEP41661	MD_177_R4_DENV3_III_India	Human	2018-10-13	Asia	India	polyprotein	Dengue virus 3
QEP41655	MD_137_R4_DENV3_III_India	Human	2018-09-06	Asia	India	polyprotein	Dengue virus 3
AVW85694.1	D4/IND/PUNE/IRSHA-FG-01 (1028)	Human	2016-01-01	Asia	India	polyprotein	Dengue virus 4
AVW85695.1	D4/IND/PUNE/IRSHA-FG-02 (S-41)	Human	2016-01-01	Asia	India	polyprotein	Dengue virus 4
AVW85696.1	D4/IND/PUNE/IRSHA-FG-03 (S-49)	Human	2016-01-01	Asia	India	polyprotein	Dengue virus 4
AFZ40130.1	DENV-4/IND/0952326/2009	Human	2009-01-01	Asia	India	polyprotein	Dengue virus 4
ANC57613.1	DENV4-3274	Human	2009-01-01	Asia	India	polyprotein	Dengue virus 4
QBA57536.1	MCVR4454AC/2017	Human	2017-07-08	Asia	India	polyprotein	Dengue virus 4
QCE20687.1	R1_BC09_SP50_Blr_IND_04062017	Human	2017-06-04	Asia	India	polyprotein	Dengue virus 4
ARB18129.1	UOH_23916	Human	2015-01-01	Asia	India	polyprotein	Dengue virus 4
QDZ58859	FT_MD_139_R4	Human	2018-11-09	Asia	India	polyprotein	Dengue virus 4

Supplementary Table S3. Alignment of CD4 and CD8 epitopes in circulating viruses from India.

Detailed information on the globally reported CD8/CD4 T cell epitopes that are not present in any of the viral isolates, present in all of the viral isolates, present in only 81% – <100% or 51% – 80% or in only >0% – 50% of viral isolates for each of the epitopes for all the four dengue serotypes. The globally reported CD4/CD8 T cell epitopes are organized into eight categories: DENV-1 specific CD4 epitopes, DENV-2 specific CD4 epitopes, DENV-3 specific CD4 epitopes, DENV-4 specific CD4 epitopes, DENV-1 specific CD8 epitopes, DENV-2 specific CD8 epitopes, DENV-3 specific CD8 epitopes and DENV-4 specific CD8 epitopes. In each category, identity in individual viral isolates is detailed. Green color shade and number 1 indicates 100% identity in the given viral isolate. Pink color shade and number zero indicates not identical in the given viral isolate.

CD4 DENV-1 Epitopes

[illegible]

[illegible]

[illegible]

CD4 DENV-3 Epitopes

[illegible]

[illegible]

739553	LGMMHQFGSAYTA	E	710	728	HLA-DRB1*04:03	81% <100%	Dengue virus 3	ELISPT	IFNg release	Positive	1	1	1	1	0	1	1	1	1	1	1	0	1	1	1	1	1
739011	GGVNSLGMKHQHF	E	704	714	HLA-DRB1*11:04	81% <100%	Dengue virus 3	ELISPT	IFNg release	Positive	1	1	1	1	0	1	1	1	1	1	1	1	0	1	1	1	1
739041	GMSVMACNTFVLVK	E	574	588	HLA-DRB1*04:07	81% <100%	Dengue virus 3	ELISPT	IFNg release	Positive	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1
739344	KMHHQFGSAYTALF	E	31	45	HLA-DRB3*02:02	81% <100%	Dengue virus 3	ELISPT	IFNg release	Positive	1	1	1	1	1	0	1	1	1	1	1	1	1	0	1	1	1
740409	MVGVSJNSLGMKHQ	E	702	716	HLA-DRB1*11:04	81% <100%	Dengue virus 3	ELISPT	IFNg release	Positive	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1
741747	SGKVGVHQRHVGLSGATW	E	281	300	HLA-C*08:01	81% <100%	Dengue virus 3	ELISPT	IFNg release	Positive	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1
868175	MYHRQWFDFPLPWMT	E	485	499	HLA-DQA1*01:01/DQB1*05:01	81% <100%	Dengue virus 3	ELISPT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
190705	AKVIETATNSSFII	NS1	894	908	HLA-DRB1*04:01	81% <100%	Dengue virus 3	ELISPT	IFNg release	Positive	0	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1
190996	TEGYKFQADSPKRLA	NS1	802	816	HLA-DRB5*01:01	81% <100%	Dengue virus 3	ELISPT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
195419	GSWKLVKLSELEIVCT	NS1	981	995	HLA-DRB1*01:01	81% <100%	Dengue virus 3	ELISPT	IFNg release	Positive	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0	1	1
195577	LKTVVGDITGVELEQ	NS1	858	872	HLA-DRB1*03:01	81% <100%	Dengue virus 3	ELISPT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
196219	KYGFQASPKRLATA	NS1	805	819	HLA-DRB1*03:01	81% <100%	Dengue virus 3	ELISPT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
196712	NGSWLKLEAGLEVW	NS1	980	994	HLA-DRB1*09:01	81% <100%	Dengue virus 3	ELISPT	IFNg release	Positive	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0	1
539825	QKFKQDASPCKRLATA	NS1	804	818	HLA-DRB3*02:02	81% <100%	Dengue virus 3	ELISPT	IFNg release	Positive	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1
167810	RENNLLGVGLAMATTQLQPE	NS2a	1224	1243	HLA-DP	81% <100%	Dengue virus 3	ELISPT	IFNg release	Positive	1	1	1	1	0	1	1	1	1	1	1	1	1	0	1	1	1
195632	LGFFLRKLTSRNNL	N52a	1234	1228	HLA-DRB1*11:01	81% <100%	Dengue virus 3	ELISPT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
195645	LDSRSRTFTTLTV	N52a	1274	1288	HLA-DRB1*02:01	81% <100%	Dengue virus 3	ELISPT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
195836	PILFSLDKTKVRHS	N52a	1300	1344	HLA-DRB1*11:01	81% <100%	Dengue virus 3	ELISPT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1
195912	RTATUAGAOLSVLPV	NS2a	1291	1305	HLA-DRB1*03:01	81% <100%	Dengue virus 3	ELISPT	IFNg release	Positive	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	0	1
767442	KLTFQETVQLWTAL	NS2a	1260	1274	HLA-DRB1*02:01	81% <100%	Dengue virus 3	ELISPT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1
860406	MAKLTKTETQETVQLW	NS2a	1257	1271	HLA-DRB1*01:01	81% <100%	Dengue virus 3	ELISPT	IFNg release	Positive	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1
868319	PILPLFSLDKTKLR	NS2a	1328	1342	HLA-DRB1*01:01	81% <100%	Dengue virus 3	ELISPT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1
868794	TOFETVQLWTALVLS	NS2a	1263	1277	HLA-DRB1*02:01	81% <100%	Dengue virus 3	ELISPT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
195180	ASLLNDVPMAGPLV	NS2b	1361	1375	HLA-DRB1*03:01	81% <100%	Dengue virus 3	ELISPT	IFNg release	Positive	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
195789	NLTLVLLKLTALLVS	NS2b	1436	1450	HLA-DRB1*01:01	81% <100%	Dengue virus 3	ELISPT	IFNg release	Positive	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0	1
195994	SSLRNDVPMAGPLV	NS2b	1362	1376	HLA-DRB1*03:01	81% <100%	Dengue virus 3	ELISPT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
150544	RLRLTLUATPRTVA	NS3	1688	1702	HLA-DRB1*01:01	81% <100%	Dengue virus 3	ELISPT	IFNg release	Positive	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1
190732	EAAMFMTATPPTGA	NS3	1782	1796	HLA-DRB1*04:03	81% <100%	Dengue virus 3	ELISPT	IFNg release	Positive	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
195901	RLRLTLUATPRTVA	NS3	1689	1703	HLA-DRB1*04:03	81% <100%	Dengue virus 3	ELISPT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
30395	KGEEKKLKRPWILDA	NS3	585	599	HLA-class II	81% <100%	Dengue virus 3	ICS	IFNg release	Positive	1	0	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1
39	AAAFMTATPPTGAD	NS3	1783	1797	HLA-DRB1*04:03	81% <100%	Dengue virus 3	ELISPT	IFNg release	Positive	0	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1
539028	AAAFMTATPPTGAD	NS3	1784	1798	HLA-DRB1*10:01	81% <100%	Dengue virus 3	ELISPT	IFNg release	Positive	0	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1
193818	REAKIRRLRTLAP	NS3	1683	1697	HLA-DRB1*14:04	81% <100%	Dengue virus 3	ELISPT	IFNg release	Positive	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1
540019	VGILNGVGVTKNGGY	NS3	9	23	HLA-DRB1*15:06	81% <100%	Dengue virus 3	ELISPT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
55024	RNTIMDLVRSQGT	NS3	187	201	HLA-class II	81% <100%	Dengue virus 3	ICS	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
66127	TRVAAEMEEA	NS3	225	235	HLA-DR15	81% <100%	Dengue virus 3	51 chromium cytotoxicity		Positive	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1
867875	LNDWDFVYTDISEM	NS3	1873	1887	HLA-DQA1*03:01/DQB1*03:02	81% <100%	Dengue virus 3	ELISPT	IFNg release	Positive	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
195522	LPLQWIASAVLEFF	NS4a	2192	2206	HLA-DRB1*01:01	81% <100%	Dengue virus 3	ELISPT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1
195828	PETMETLLGLLML	NS4a	2141	2155	HLA-DRB1*15:06	81% <100%	Dengue virus 3	ELISPT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
196065	TULLGLMLTQGA	NS4a	2146	2160	HLA-DRB1*15:06	81% <100%	Dengue virus 3	ELISPT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
739464	LTLSGQSGTSGISG	NS4a	2162	2176	HLA-DRB1*02:02	81% <100%	Dengue virus 3	ELISPT	IFNg release	Positive	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1
167753	HVNAPEPTPNMDVGERIK	N55	263	282	HLA-class II	81% <100%	Dengue virus 3	ELISPT	IFNg release	Positive	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1
195382	KGVRKDIPQWQSPK	N55	3175	3189	HLA-DRB1*03:01	81% <100%	Dengue virus 3	ELISPT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1
195668	LLRNTMTTHRPTE	N55	16	30	HLA-DRB1*11:01	81% <100%	Dengue virus 3	ELISPT	IFNg release	Positive	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1
195779	NDMGSVKRDPQWQSP	N55	3172	3186	HLA-DRB1*03:01	81% <100%	Dengue virus 3	ELISPT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1
195817	NRTMTTHRPTEISD	N55	18	32	HLA-DRB1*11:01	81% <100%	Dengue virus 3	ELISPT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
195875	RAIWMWMLGARLYEF	N55	2961	2975	HLA-DRB1*01:01	81% <100%	Dengue virus 3	ELISPT	IFNg release	Positive	0	1	1	1	0	1	1	1	1	1	1	1	0	0	1	1	1
195939	SCVNMNMKKREKGLG	N55	2938	2952	HLA-DRB1*11:01	81% <100%	Dengue virus 3	ELISPT	IFNg release	Positive	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
231420	LFLEFALGFUNEDH	N55	2971	2985	HLA-DRB1*04:01	81% <100%	Dengue virus 3	ELISPT	IFNg release	Positive	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1
539458	KCCSGVNMNMKKREK	N55	2935	2949	HLA-DRB1*13:01	81% <100%	Dengue virus 3	ELISPT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
539831	RATWAGNPITAQGV	N55	3346	3360	HLA-DRB1*09:01	81% <100%	Dengue virus 3	ELISPT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
74871	ESFLDYLSKARFRK	N55	3367	3381	HLA-DRB1*14:01	81% <100%	Dengue virus 3	ELISPT	IFNg release	Positive	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1
738759	FLDYNSPMKRRFK	N55	3368	3382	HLA-DRB1*14:06	81% <100%	Dengue virus 3	ELISPT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
857703	IWMWMLGARLYEFA	N55	2963	2977	HLA-DRB1*04:01	81% <100%	Dengue virus 3	ELISPT	IFNg release	Positive	0	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1
867015	GSVNMNMKKREKLL	NS5	2937	2951	HLA-DRB5*01:01	81% <100%	Dengue virus 3	ELISPT	IFNg release	Positive	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
868338	PMSTYGVNMVLMSSG	N55	2605	2619	HLA-DQA1*01:01/DQB1*05:01	81% <100%	Dengue virus 3	ELISPT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
195865	WPMWMLGARLYEFA	N55	2964	2978	HLA-DQA1*01:01/DQB1*05:01	81% <100%	Dengue virus 3	ELISPT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
195407	IKVLGKGFKEKSNL	C																									

869526	VLLLVTHYAI GPGL	NS4b	2353	2367	HLA-DPB1*02:01	>0% - 50%	Dengue virus 3	ELISPOT	IFNγ release	Positive	0	0	0	0	0	1	1	1	0	1	1	1	0	0	0	1	0	0	1	1
196239	YQNKVVVKVQRPTPKG	NS5	3062	3076	HLA-DRB1*08:02	>0% - 50%	Dengue virus 3	ELISPOT	IFNγ release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0

CD4 DENV-4 Epitopes

											NCBI IDs of DENV-4 circulating strains from India, (100% identity=1,green ; else 0 , red)									
Epitope_ID	AA_Seq	Protein_Name	Start	End	Allele	step	Serotype	Method/Technique	Assay Group	Qualitative Measure	AVW85694.1	AVW85695.1	AVW85696.1	AF240130.1	ANCS7613.1	QBAS7536.1	QC20687.1	ARB18129.1	QD258859	
195483	IGFRKEIGRMLNILN	C	81	95	HLA-DRB1*04:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0	
195488	IGRMLNILNRRKRST	C	87	101	HLA-DRB1*14:02	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0	
195580	KNKAIKILIGFRKEI	C	53	67	HLA-DRB1*15:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0	
195768	MTLLCLIPTAMAFHL	C	102	116	HLA-DRB1*01:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0	
195922	RWGQLKKTKAIKILT	C	67	81	HLA-DRB1*07:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0	
196065	TPQGLVKRFSSGLFS	C	24	38	HLA-DRB1*15:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0	
36533	LIGFRKEIGRML	C	80	91	HLA-DPw4	0%	Dengue virus 4	ICS	IFNg release	Positive	0	0	0	0	0	0	0	0	0	
539571	LIGFRKEIGRMLNIL	C	80	94	HLA-DRB1*09:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0	
539581	LKKNKAIKILIGFRK	C	51	65	HLA-DRB1*14:04	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0	
540116	WGQLKKNKAIKILIG	C	68	82	HLA-DRB1*09:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0	
739606	GRMLNILNGRKRSTM	C	88	102	HLA-DRB1*14:02	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0	
739178	IGRMLNILNRRRRST	C	87	101	HLA-DRB1*14:02	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0	
868732	RWGQLKKNKAIKILI	C	39	53	HLA-DRB3*02:02	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0	
195916	RTVFFVLMLMLVAPSY	PreM	264	278	HLA-DRB1*01:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0	
869670	WCNLTSWTVMVYGTCT	PreM	180	194	HLA-DQA1*01:02/DOB1*06:02	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0	
167808	RDVNEKVGVRVISTPLAE	E	340	359	HLA class II	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0	
195227	DSYIVIGVGNLSALT	E	654	668	HLA-DRB1*15:06	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0	
195364	GGVSWMIRILIGILV	E	449	463	HLA-DRB1*15:06	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0	
195434	GVSWMIRILIGFLVL	E	729	743	HLA-DRB1*08:02	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0	
195435	GVSWMIRILIGLLVL	E	729	743	HLA-DRB1*15:06	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0	
195625	LESTYRGAKRMAILG	E	681	695	HLA-DRB1*14:02	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0	
196036	TGIQRTVFFVLMLLV	E	44	58	HLA-DRB1*07:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0	
196189	VSWIIRILIGLLVLW	E	451	465	HLA-DRB1*15:06	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0	
539230	EMILMKMKKKTWLVH	E	474	488	HLA-DRB1*12:02	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0	
195791	NIMWVKQITNELNYVL	NS1	839	853	HLA-DRB1*04:07	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0	
539829	QYQOPESPARLASA	NS1	805	819	HLA-DRB1*09:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0	
167725	AMITTLTSLPHDLMEIDIGIS	NS2a	50	69	HLA class II	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0	
195156	ALSLTFIRSTMPLVM	NS2a	1274	1288	HLA-DRB1*07:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0	
195157	ALSLTFIRSTMSLVM	NS2a	1274	1288	HLA-DRB1*04:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0	
195158	ALSLTFIRSTTPLVM	NS2a	1274	1288	HLA-DRB1*07:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0	
195190	AVFKMSPGVYGVFL	NS2a	1204	1218	HLA-DRB1*01:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0	
195221	DLMELISGISLGLIL	NS2a	1243	1257	HLA-DRB1*07:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0	
195746	MAVFKMSPGVYGVFL	NS2a	1203	1217	HLA-DRB1*07:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0	
196061	TMSLVMAWRTIMAVL	NS2a	1283	1297	HLA-DRB1*03:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0	
196070	TRKHMLAVVITLCA	NS2a	1154	1168	HLA-DRB1*08:02	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0	
196253	YVLGVFLRKLTSLRET	NS2a	1212	1226	HLA-DRB1*11:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0	
539130	CLRRRVTRKHMLAV	NS2a	1148	1162	HLA-DRB1*08:03	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0	
539198	ECLRRRVTRKHMLA	NS2a	1147	1161	HLA-DRB1*13:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0	
539360	GVFLRKLTSLRETALM	NS2a	1215	1229	HLA-DRB1*10:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0	
539406	IGGQIHLAIMAVFKM	NS2a	1194	1208	HLA-DRB1*13:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0	
539407	IGGQTHLAIMAVFKM	NS2a	1194	1208	HLA-DRB1*13:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0	
539433	IRSTMPLVMAWRTIM	NS2a	1280	1294	HLA-DRB1*13:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0	
539434	IRSTMSLVMAWRTIM	NS2a	1280	1294	HLA-DRB1*13:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0	
539565	LGVFLRKLTSLRETAL	NS2a	1214	1228	HLA-DRB1*08:03	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0	
539627	LSLTFIRSTMPLVMA	NS2a	1275	1289	HLA-DRB1*10:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0	
539628	LSLTFIRSTPLVMA	NS2a	1275	1289	HLA-DRB1*08:03	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0	
539919	SLTFIRSTMPLVMAW	NS2a	1276	1290	HLA-DRB1*09:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0	
539921	SLTFIRSTPLIMAW	NS2a	1276	1290	HLA-DRB1*04:03	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0	
539961	TALMVIGMAMTTTSL	NS2a	1226	1240	HLA-DRB1*01:02	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0	
540033	VFKMSPGVYGVFLR	NS2a	1205	1219	HLA-DRB1*09:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0	
540053	VLGVFLRKLTSLRET	NS2a	1213	1227	HLA-DRB1*14:04	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0	
738559	AVVITLCAIILGSLT	NS2a	1161	1175	HLA-DRB1*01:02	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0	
867669	LTFIRSTPLVMAWR	NS2a	1277	1291	HLA-DRB3*02:02	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0	
45689	NRKGKIVGLYGNGV	NS3	141	155	HLA-DRB1*15:01	0%	Dengue virus 4	ICS	IFNg release	Positive	0	0	0	0	0	0	0	0	0	
53505	REGEKKLRPRWLDR	NS3	585	599	HLA class II	0%	Dengue virus 4	ICS	IFNg release	Positive	0	0	0	0	0	0	0	0	0	
539020	AAAFMTATPPGATD	NS3	1783	1797	HLA-DRB1*10:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0	
539021	AAAFMTATPPGSDI	NS3	1783	1797	HLA-DRB1*04:07	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0	
539023	AAAFMTATPPGTID	NS3	1783	1797	HLA-DRB1*04:03	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0	
539026	AAAFMTATPPGATDP	NS3	1784	1798	HLA-DRB1*09:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0	
540077	VREAIKRRRLTLVLA	NS3	1682	1696	HLA-DRB1*08:03	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0	
868371	PRWLDAVRYADPMAL	NS3	2067	2081	HLA-DQA1*03:01/DOB1*03:02	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0	
195386	GLTIAVASGLLWMA	NS4a	2176	2190	HLA-DRB1*07:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0	

195551	IYVILTILTIALVA	NS4a	2227	2241	HLA-DRB1*01:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0
195648	LIYVILTITIALV	NS4a	2226	2240	HLA-DRB1*07:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0
195853	QLIYVILTILAIGL	NS4a	2225	2239	HLA-DRB1*15:02	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0
196250	YVILAILTIGLVAA	NS4a	2228	2242	HLA-DRB1*08:02	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0
196251	YVILALLTISLIAA	NS4a	2228	2242	HLA-DRB1*15:02	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0
539666	MGLTIIVASGLLWV	NS4a	2175	2189	HLA-DRB1*09:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0
867726	LIYVILTITIIGLI	NS4a	2226	2240	HLA-DPB1*04:02	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0
195719	LTASLAMLVHYAI	NS4b	2346	2360	HLA-DRB1*07:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0
196055	TLIASLVMLLVHYAI	NS4b	2345	2359	HLA-DRB1*01:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0
196082	TTIASLVMLLVHYA	NS4b	2344	2358	HLA-DRB1*13:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0
196209	WAFCEVLTLATGPVL	NS4b	2427	2441	HLA-DRB1*07:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0
539661	MGCSQVNPTTLIA	NS4b	2335	2349	HLA-DRB1*09:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0
738500	AMGCYSQVNPNTLIA	NS4b	2334	2348	HLA-DRB1*04:07	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0
195230	DYMPMVMKRSVPSES	NS5	3369	3383	HLA-DRB1*11:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0
195593	KTFMKDGRSLVPCR	NS5	3202	3216	HLA-DRB1*03:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0
195764	MPVMKRYSPASEEG	NS5	3371	3385	HLA-DRB1*08:02	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0
195835	PKPGTRMVTMTTANW	NS5	2853	2867	HLA-DRB1*04:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0
195919	RWIEDNPNMIDKTP	NS5	3303	3317	HLA-DRB1*03:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0
196071	TRMVMTTTANWLWAL	NS5	2857	2871	HLA-DRB1*04:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0
196092	TYQNKKVKVLRPTPR	NS5	3059	3073	HLA-DRB1*08:02	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0
196106	VDYMPVMKRYSPASE	NS5	3368	3382	HLA-DRB1*11:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0
539222	EKPDMTIIGRRLLRL	NS5	2757	2771	HLA-DRB1*12:02	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0
539354	GTRMVMTTTANWLWA	NS5	2856	2870	HLA-DRB1*04:03	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0
539493	KMLLNRFTRHRKPT	NS5	2724	2738	HLA-DRB1*13:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0
539498	KPDMTIIGRRLLRLQ	NS5	2758	2772	HLA-DRB1*08:03	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0
539769	PGTRMVTMTTANWLW	NS5	2855	2869	HLA-DRB1*04:03	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0
540007	TSKMLLNRFTRTHR	NS5	2721	2735	HLA-DRB1*13:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0
867473	KPLDERFGTSLFLN	NS5	3156	3170	HLA-DPB1*01:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0
867575	LDERFGTSLFLNDM	NS5	3158	3172	HLA-DPB1*04:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0
1067635	LKRWGQLKKNKAIKI	C	65	79	HLA-DRB1*07:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive-Low	1	1	1	1	1	1	1	1	1
1068575	VVRPPFNMLKRENR	C	7	21	HLA-DRB1*11:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive-Low	1	1	1	1	1	1	1	1	1
17605	FRKEIGRML	C	83	91	HLA-DPw4	100%	Dengue virus 4	51 chromium	cytotoxicity	Positive	1	1	1	1	1	1	1	1	1
195316	FNMLKRENRNVSTPQ	C	12	26	HLA-DRB1*04:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1
195325	FRKEIGRMLNLNGR	C	19	33	HLA-DRB1*04:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1
195587	KRWGQLKKNKAIKIL	C	46	60	HLA-DRB1*08:03	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1
195651	LKKNKAIKITGFRK	C	51	65	HLA-DRB1*14:04	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1
195900	RMVLAFITFLRVLSI	C	44	58	HLA-DRB1*11:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1
196134	VLAFITFLRVLSIPP	C	26	40	HLA-DRB1*04:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1
539044	AFITFLRVLSIPPTA	C	28	42	HLA-DRB1*04:03	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1
539255	FITFLRVLSIPPTAG	C	49	63	HLA-DRB1*04:07	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1
539294	GFRKEIGRMLNLING	C	54	68	HLA-DRB3*02:02	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1
539496	KNKAIKITGFRKEI	C	53	67	HLA-DRB1*12:02	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1
539536	LAFITFLRVLSIPTT	C	27	41	HLA-DRB1*12:02	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1
539632	LTGFRKEIGRMLNIL	C	52	66	HLA-DRB3*02:02	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1
69367	VLAFITFLR	C	46	54	HLA-DPw4	100%	Dengue virus 4	51 chromium	cytotoxicity	Positive	1	1	1	1	1	1	1	1	1
739175	IGRMLNINLGRKRST	C	87	101	HLA-DRB1*14:02	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1
740156	RPPFNMLKRENRVRS	C	9	23	HLA-DRB1*14:02	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1
868517	QLKKNKAIKITGFR	C	42	56	HLA-DQA1*01:02/QQB1*06:02	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1
195283	FALLAGFMAYMIGQT	PreM	246	260	HLA-DRB1*01:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1
195505	ILRNPGFALLAGFMA	PreM	240	254	HLA-DRB1*01:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1
195901	RNPGFALLAGFMAYM	PreM	242	256	HLA-DRB1*15:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1
539395	IDCWCNLTSAWVMYG	PreM	117	131	HLA-DQA1*01:02/QQB1*06:02	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1
869119	TEGINKCTLIAMDGL	PreM	113	127	HLA-DQA1*01:02/QQB1*06:02	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1
195202	CIAVGGITFLFGFTV	E	758	772	HLA-DRB1*15:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1
195272	ESTYRGAKRMAILGE	E	682	696	HLA-DRB1*15:06	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1
539379	HAKRQDVTVLGSQEGAMH	E	523	540	HLA class II	100%	Dengue virus 4	ICS	IFNg release	Positive	1	1	1	1	1	1	1	1	1
539734	NLEYTVVTVHNGDTP	E	197	211	HLA-DRB1*04:07	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1
738809	ENLEYTVVTVHNGDT	E	196	210	HLA-DRB1*04:07	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1
738886	FESTYRGAKRMAILG	E	681	695	HLA-DRB1*14:02	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1
741747	MRCVGVGNRDFVEGVSGAW	E	280	299	HLA class II	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1
195541	ITALILGAQALPVYL	NS2a	1320	1334	HLA-DRB1*01:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1
195699	LQKQSHWVEITAILIL	NS2a	1311	1325	HLA-DRB1*07:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1
195837	PLVMQAWRTIMAVLFV	NS2a	1285	1299	HLA-DRB1*01:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1
195864	QSHWVEITAILILGAQ	NS2a	1314	1328	HLA-DRB1*07:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1
196060	TMPLVMQAWRTIMAVL	NS2a	1283	1297	HLA-DRB1*03:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1
196227	VWEITAILILGAQALP	NS2a	1317	1331	HLA-DRB1*01:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1

539131	CLRRRVTRKHMLV	NS2a	1148	1162	HLA-DRB1*08:03	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1
539687	MLPLVMAWRITMAVL	NS2a	1284	1298	HLA-DRB1*12:02	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1
539937	STPLVMAWRITMAV	NS2a	1282	1296	HLA-DRB1*13:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1
738742	ECLRRRVTRKHMLV	NS2a	1147	1161	HLA-DRB1*14:02	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1
867110	HWVEITALILGAQAL	NS2a	1316	1330	HLA-DQA1*03:01/DQB1*03:02	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1
195511	IMAVGLVSLGSGALL	NS2b	1352	1366	HLA-DRB1*01:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1
195662	LLLAAYVMSGSSADL	NS2b	1381	1395	HLA-DRB1*04:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1
196062	TNMITLLVKLALIV	NS2b	1436	1450	HLA-DRB1*08:02	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1
869635	VTMTLWYVMWQVKTQR	NS2b	1460	1474	HLA-DPB1*01:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1
1067119	GKVIGLYGNGVVTKS	NS3	1618	1632	HLA-DRB1*15:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1
12605	EIVDLMCHAT	NS3	255	264	HLA-DPw2	100%	Dengue virus 4	51 chromium	cytotoxicity	Positive	1	1	1	1	1	1	1	1	1	1
156711	LAPTRVVAEMEEL	NS3	1695	1709	HLA class II	100%	Dengue virus 4	51 chromium	cytotoxicity	Positive	1	1	1	1	1	1	1	1	1	1
195298	FHTMWHVTRGSVICH	NS3	1520	1534	HLA-DRB1*07:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1
195563	KGKVIPLYGNGGVTK	NS3	5	19	HLA-DRB1*15:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1
195695	LPVWLSYKVASAGIS	NS3	2016	2030	HLA-DRB1*08:02	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1
195838	PNYNILVMDDEAFTD	NS3	1750	1764	HLA-DRB1*03:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1
33192	KRLTIMDLHPGAGKT	NS3	186	200	HLA class II	100%	Dengue virus 4	ICS	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1
539024	AAAFIMTATPPGTTD	NS3	1783	1797	HLA-DRB1*04:03	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1
539080	ALRGLPIRYQTPAVK	NS3	96	110	HLA-DRB1*13:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1
539359	GVFHTMWHVTRGSVI	NS3	1518	1532	HLA-DRB1*08:03	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1
539520	KVIGLYGNGGVTKSG	NS3	7	21	HLA-DRB1*15:06	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1
539803	QGKTWVFPSPKAGN	NS3	1829	1843	HLA-DRB1*08:03	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1
68977	VIGLYGNGV	NS3	146	154	HLA-DRB1*15:01	100%	Dengue virus 4	51 chromium	cytotoxicity	Positive	1	1	1	1	1	1	1	1	1	1
863140	TRVEMGEAAAFIMTA	NS3	1776	1790	HLA-DQA1*03:01/DQB1*03:02	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1
867453	KLTDWDFVVTDDISE	NS3	1872	1886	HLA-DQA1*03:01/DQB1*03:02	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1
167758	ILTEIASLPTYLSSRAKL	NS4a	6	23	HLA-DP	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1
195176	ASLPTYLSSRAKLAL	NS4a	2103	2117	HLA-DRB1*07:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1
195224	DNQLIYVILTLTI	NS4a	2223	2237	HLA-DRB1*15:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1
195809	NQLIYVILTLITIG	NS4a	2224	2238	HLA-DRB1*08:02	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1
195876	RAKLALDNIVMLHTT	NS4a	2112	2126	HLA-DRB1*03:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1
539165	DILTEIASLPTYLSS	NS4a	2097	2111	HLA-DRB1*04:07	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1
539313	GKAYQHALLNELPEL	NS4a	2130	2144	HLA-DRB1*10:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1
539631	LTEIASLPTYLSSRA	NS4a	2099	2113	HLA-DRB1*04:03	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1
738568	AYQHALLNELPESET	NS4a	2132	2146	HLA-DRB1*04:07	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1
868951	SLPTYLSSRAKLALD	NS4a	2104	2118	HLA-DRB3*02:02	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1
195177	ASLVMLLVHYAIGP	NS4b	2348	2362	HLA-DRB1*13:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1
195219	DLEPISYDPKFEQL	NS4b	2393	2407	HLA-DRB1*03:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1
195276	ETITLDVDLRPASAW	NS4b	2263	2277	HLA-DRB1*03:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1
195592	KTETITLDVLRPAS	NS4b	2261	2275	HLA-DRB1*03:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1
195616	LCAGQLLMRTTWAF	NS4b	2415	2429	HLA-DRB1*04:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1
195720	LTASLVMLLVHYAI	NS4b	2346	2360	HLA-DRB1*12:02	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1
196048	TITDVLDRPASAWTL	NS4b	2265	2279	HLA-DRB1*03:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1
196208	WAFCEVLTATGPIL	NS4b	2427	2441	HLA-DRB1*07:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1
196226	WTLYAVATILTIPML	NS4b	2277	2291	HLA-DRB1*07:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1
539057	AGQLLMRTTWAFCE	NS4b	2417	2431	HLA-DRB1*13:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1
539185	DVDLRPASAWTLAYV	NS4b	2268	2282	HLA-DRB1*09:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1
539639	LVHYAIIIGPLQAKA	NS4b	2354	2368	HLA-DQA1*05:01/DQB1*02:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1
739202	ITDVLDRPASAWTLY	NS4b	2266	2280	HLA-DRB1*01:02	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1
1066543	ACL GKAYAQMWLSLMY	NS5	3240	3254	HLA-DRB1*04:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive-Low	1	1	1	1	1	1	1	1	1	1
195235	EEFISKVRSNAIGA	NS5	2884	2898	HLA-DRB1*08:02	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1
195240	EEVDYMPVMKRYSA	NS5	3365	3379	HLA-DRB1*11:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1
195279	EVVDYMPVMKRYSP	NS5	3366	3380	HLA-DRB1*11:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1
195737	LCWGSILIGLSRATW	NS5	3333	3347	HLA-DRB1*11:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1
195815	NRVWIEDNPNMMDKT	NS5	3302	3316	HLA-DRB1*03:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1
195823	NWLWALLGKKKNPLR	NS5	2866	2880	HLA-DRB1*14:02	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1
195858	QMWSLMYFHRDLRL	NS5	3248	3262	HLA-DRB1*15:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1
195879	REFISKVRSNAIGA	NS5	2883	2897	HLA-DRB1*04:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1
196105	VDYMPVMKRYSAFFE	NS5	3368	3382	HLA-DRB1*11:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1
196230	YAQMWSLMYFHRDL	NS5	3246	3260	HLA-DRB1*15:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1
539251	FEFYKRSGLIEVDRT	NS5	2512	2526	HLA-DRB1*09:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1
539553	LGEFGRAKSGRAIWT	NS5	2949	2963	HLA-DRB1*09:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1
539656	MAISGDDCVKPLDERF	NS5	3146	3162	HLA class II	100%	Dengue virus 4	ICS	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1
539703	MVTQLAMTDTPFGQQR	NS5	2824	2840	HLA class II	100%	Dengue virus 4	ICS	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1
539770	PHHKILAKAIFKLT	NS5	3046	3060	HLA-DRB1*12:02	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1
540041	VTGYLNTFTNMEVQ	NS5	3091	3105	HLA-DRB1*15:06	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1
866633	ESCYNMIMGKREKLL	NS5	2935	2949	HLA-DRB5*01:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1

868638	RDRLASMAICSAVP	NS5	3258	3272	HLA-DQA1*01:02/DQB1*06:02	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1
539898	SGKGPLRMVLAFITF	C	18	32	HLA-DRB1*15:06	81% - <100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	0	1	1
739059	GRMLNINLGRKRSTI	C	88	102	HLA-DRB1*14:06	81% - <100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	0	1	1
539463	KERMVTFKVPVHAKRQ	E	513	527	HLA-DRB1*04:03	81% - <100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	0	1	1	1	1
540080	VRILGFLVLWIGTN	E	455	469	HLA-DRB1*15:06	81% - <100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	1	1	1
195822	NVMWVKQITNELNYVL	NS1	1	15	HLA-DRB1*04:07	81% - <100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	0	1	1
867043	HADMGYWIESSKNQT	NS1	969	983	HLA-DQA1*01:01/DQB1*05:01	81% - <100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	0	1	1
195571	KHMLVVVVITLCAI	NS2a	1156	1170	HLA-DRB1*08:02	81% - <100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	0	1	1	1	1
195404	GLVSLGSLALKNDV	NS2b	9	23	HLA-DRB1*01:02	81% - <100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	0	1	1
195748	MAVGLVSLGSLALK	NS2b	1353	1367	HLA-DRB1*01:01	81% - <100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	0	1	1
195931	SALLKNDVPLAGPMV	NS2b	1363	1377	HLA-DRB1*03:01	81% - <100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	0	1	1
539101	AVGLVSLGSLALKN	NS2b	1354	1368	HLA-DRB1*10:01	81% - <100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	0	1	1
1392192	GREIVDLMCATFTT	NS3	1727	1741		81% - <100%	Dengue virus 4	biological activity	activation	Positive	1	1	1	1	1	1	0	1	1
195244	EGVYRIMQRGLFGKT	NS3	1494	1508	HLA-DRB1*11:01	81% - <100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	0	1	1
195353	GEIGAVTLDFKPGTS	NS3	1595	1609	HLA-DRB1*03:01	81% - <100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	0	1	1	1	1
196032	TEGVYRIMQRGLFGK	NS3	146	160	HLA-DRB1*11:01	81% - <100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	0	1	1
539547	LFKLTLTGEIGAVTLD	NS3	1589	1603	HLA-DRB1*10:01	81% - <100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	0	1	1	1	1
739767	PLGFKLTGTGEIGAVT	NS3	1587	1601	HLA-DRB1*10:01	81% - <100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	0	1	1	1	1
739036	GLPIRYQTPAVKSEH	NS3	1711	1725	HLA-DRB1*14:06	81% - <100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	0	1	1	1	1	1	1
739563	LRGLPIRYQTPAVKS	NS3	1709	1723	HLA-DRB1*14:06	81% - <100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	0	1	1	1	1	1	1
195274	ETLMLVALLGAMTAG	NS4a	2145	2159	HLA-DRB1*08:02	81% - <100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	1	1	1	1	1
195575	KLSMGLIAIAVASGL	NS4a	2172	2186	HLA-DRB1*08:02	81% - <100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	0	1	1	1	1
196058	TLMLVALLGAMTAGI	NS4a	2146	2160	HLA-DRB1*01:01	81% - <100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	1	1	1	1	1
539638	LVALLGAMTAGIFLF	NS4a	2149	2163	HLA-DRB1*09:01	81% - <100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	1	1	1	1	1
539584	LLAMGCYSQVNPPTL	NS4b	2332	2346	HLA-DRB1*09:01	81% - <100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	0	1	1	1	1
867009	GRFWNTTIAVSTANI	NS4b	2449	2463	HLA-DQA1*01:02/DQB1*06:02	81% - <100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	0	1	1
195454	HHFKIFMKDGRSLV	NS5	3199	3213	HLA-DRB1*03:01	81% - <100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	0	1	1
195499	ILAKAIFKLTQYQNV	NS5	3050	3064	HLA-DRB1*07:01	81% - <100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	0	1	1	1	1
539149	DCVVKPLDERFSTSLF	NS5	3152	3168	HLA class II	81% - <100%	Dengue virus 4	ICS	IFNg release	Positive	1	1	1	1	0	1	1	1	1
539456	KAIFKLTQYQNVVKV	NS5	3053	3067	HLA-DRB1*09:01	81% - <100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	0	1	1	1	1
739405	KVRSNAAIGAVFQEE	NS5	2889	2903	HLA-DRB1*01:02	81% - <100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	1	1	1	1	1
866364	DERFSTSLFLNDMG	NS5	3159	3173	HLA-DPB1*01:01	81% - <100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	0	1	1	1	1
867070	HKIFMKDGRSLVVP	NS5	3202	3216	HLA-DRB3*02:02	81% - <100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	0	1	1
867315	ISKVRSNAAIGAVFQ	NS5	2887	2901	HLA-DRB3*02:02	81% - <100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	1	1	1	1	1
867411	KILAKAIFKLTQYQNK	NS5	3049	3063	HLA-DPB1*04:02	81% - <100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	0	1	1	1	1
195436	GVSWMVRILGFLVQ	E	450	464	HLA-DRB1*08:02	51%-80%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	1	1
195473	IAVGGITLFLGFTVQ	E	759	773	HLA-DRB1*15:01	51%-80%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	0	0	1	0	1
540051	VLGSQEGAMHSALAGA	E	531	546	HLA class II	51%-80%	Dengue virus 4	ICS	IFNg release	Positive	1	1	1	0	0	1	1	0	1
195608	LAIMAVFKMSPGVVL	NS2a	1200	1214	HLA-DRB1*13:01	51%-80%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	0	1	1	1	0	0	1	0
539664	MGGQIHAIAMAVFKM	NS2a	1194	1208	HLA-DRB1*13:01	51%-80%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	0	1	1	1	0	0	1	0
539930	SRETALMVGIMAMIT	NS2a	1223	1237	HLA-DRB1*15:06	51%-80%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	0	1	1	1	1	0	1	0
539962	TALMVIGMAMTTVLS	NS2a	1226	1240	HLA-DRB1*15:06	51%-80%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	0	1	1	1	1	0	1	0
867874	LMVIGMAMTTVLSIP	NS2a	1228	1242	HLA-DQA1*01:02/DQB1*06:02	51%-80%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	0	1	1	1	0	0	1	0
195962	SIVREALKRRLRTL	NS3	1680	1694	HLA-DRB1*11:01	51%-80%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	0	0	1
539859	RKSGKKVIQLSRKTF	NS3	1850	1864	HLA-DRB1*08:03	51%-80%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	0	0	1	1	1
539899	SGKKVIQLSRKTFDT	NS3	1852	1866	HLA-DRB1*12:02	51%-80%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	0	0	1	1	1
195214	DFGIFYQVKTETITLD	NS4b	2254	2268	HLA-DRB1*04:01	51%-80%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	0	1	1	1	1
195383	GLAFSLIKNAQTPRR	NS4b	2473	2487	HLA-DRB1*04:01	51%-80%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	1	1	1	0	0	1	1	1
196052	TKTDFGIFYQVKTET	NS4b	2251	2265	HLA-DRB1*04:01	51%-80%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	1	1	0	0	1
738447	AFSLIKNAQTPRRGT	NS4b	2475	2489	HLA-DRB1*14:06	51%-80%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	1	1	1	0	0	1	1	1
738897	FGFYQVKTETITLDV	NS4b	2255	2269	HLA-DRB1*04:07	51%-80%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	0	1	1	1	1
739417	LAFSLIKNAQTPRRG	NS4b	2474	2488	HLA-DRB1*14:02	51%-80%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	1	1	1	0	0	1	1	1
195411	GNIVSSVNTTSKMLL	NS5	2713	2727	HLA-DRB1*04:01	51%-80%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	0	1	1	0	1
539987	TLCLLIPTVMAHFLS	C	103	117	HLA-DRB1*04:03	>0% - 50%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	0	0	1	1	1	0	1	0
195526	IQRTVFFILMMLVAP	PreM	262	276	HLA-DRB1*07:01	>0% - 50%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	1	1	1	0	1	0
539820	QRTVFFILMMLVAPS	PreM	263	277	HLA-DRB1*13:01	>0% - 50%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	1	1	1	0	1	0
867174	IGQGTGIQRTVFILM	PreM	257	271	HLA-DPB1*02:01	>0% - 50%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	1	1	1	0	1	0
195358	GGLFTSLGKAVHQVF	E	705	719	HLA-DRB1*11:01	>0% - 50%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	1	1	0
195472	IAVGGITLFLGFTVH	E	480	494	HLA-DRB1*15:01	>0% - 50%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	1	1	1	0	1	0
539298	GGVSWMVRILIGLLV	E	449	463	HLA-DRB1*15:06	>0% - 50%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	1	0	0	0
540036	VGGLFTSLGKAVHQV	E	704	718	HLA-DRB1*09:01	>0% - 50%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	1	1	0
866696	FGMFTTNIMWMKFREG	NS1	934	948	HLA-DPB1*04:01	>0% - 50%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	1	1	1	0	1	0
195220	DLMEFIDIGSLGUIL	NS2a	1244	1258	HLA-DRB1*07:01	>0% - 50%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	1	1	0	0	0	0	0	0
196252	YVLGIFLRKLTSTRET	NS2a	1212	1226	HLA-DRB1*11:01	>0% - 50%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	0	0	1	1	1	0	1	0
539555	LGIFLRKLTSTRETAL	NS2a	1214	1228	HLA-DRB1*08:03	>0% - 50%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	0	0	1	1	1	0	1	0
740701	VVTLIPLCRTSCLQK	NS2a	1299	1313	HLA-DRB1*11:04	>0% - 50%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	1	1	1	0	1	0

CD8 DENV-1 Epitopes

NCBI (ID# DQ45136) circulating strains from India, 100% identity=1,green =else,0,red																																	
Accession	AA Seq	Protein Name	Start	End	Allele	step	Serotype	Method/Technique	Assay Group	Qualitative Measure	UBH3847.1	AS049619.1	1A02F0118.1	1A0C57581.1	1C0C25006.1	1C2C25005.1	1C0C25004.1	1C2C25002.1	1C2C25000.1	1C2C24998.1	1C2C24995.1	1C2C24994.1	1A06F4940.1	1A06F4941.1	1A06F4942.1	1A06F4943.1	1A0424337.1	1A0420223.1	1A0420214.1	1C2C20685.1	1A0X75606.1	1A0X75609.1	1A0X49618.1
184844	MILKERVIR	N3	15	23	HLA-B*08:01	0%	Dengue virus 1	ELISPOT	IFN-g release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
184845	MILKERVIR	N3	24	32	HLA-A*02:01	0%	Dengue virus 1	ELISPOT	IFN-g release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
186081	MALSVLFL	N52a	1297	1305	HLA-B*51:01	0%	Dengue virus 1	ELISPOT	IFN-g release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
419307	RPMAWGLFL	N52a	1211	1220	HLA-B*35:01	0%	Dengue virus 1	ELISPOT	IFN-g release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
150254	GPVVGSLAL	N62a	1275	1283	HLA-B*07:02	0%	Dengue virus 1	ELISPOT	IFN-g release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
180682	NIKEEDDF	N53	1650	1658	HLA-B*35:01	0%	Dengue virus 1	ELISPOT	IFN-g release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32347	KILRTLAPFIRNVAS	N53	216	230	HLA class I	0%	Dengue virus 1	ELISPOT	IFN-g release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
539758	KILRTLAPFIRNVAS	N53	1680	1708	HLA class I	0%	Dengue virus 1	ELISPOT	IFN-g release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32347	TPGIGFSM	N53	1975	1981	HLA-B*53:01	0%	Dengue virus 1	51 chromium	cytotoxicity	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
150674	TWMDIHR	N55	3080	3088	HLA-A*11:01	0%	Dengue virus 1	multimer/heteramer	qualitative binding	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1803787	MICQLVWQK	N53	1207	1215	HLA-B*40:01	0%	Dengue virus 1	ELISPOT	IFN-g release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
150674	LMVLVPSM	PreM	271	279	HLA-B*08:01	100%	Dengue virus 1	ELISPOT	IFN-g release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
183931	TEVTPAVL	E	329	337	HLA-B*40:01	100%	Dengue virus 1	ELISPOT	IFN-g release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
183931	YKLVKPVVY	E	421	421	HLA-B*40:01	100%	Dengue virus 1	ELISPOT	IFN-g release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
183931	QEGAMITL	E	536	544	HLA-A*02:01	100%	Dengue virus 1	ELISPOT	IFN-g release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
150254	GPVHGLGEL	N51	104	105	HLA-B*07:02	100%	Dengue virus 1	ELISPOT	IFN-g release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
183931	TRFTRVLEL	N52a	1220	1225	HLA-B*08:01	0%	Dengue virus 1	ELISPOT	IFN-g release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
183931	LALAMATVIR	N52a	1402	1410	HLA-B*51:01	100%	Dengue virus 1	ELISPOT	IFN-g release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
183931	MLMTLGLTA	N52a	1318	1367	HLA-B*35:01	0%	Dengue virus 1	ELISPOT	IFN-g release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
183931	EMALGLKMPHFVET	N53	211	245	HLA class I	100%	Dengue virus 1	ELISPOT	IFN-g release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
183931	EPVITGSDP	N53	1608	1614	HLA-B*07:02	100%	Dengue virus 1	ELISPOT	IFN-g release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
183931	RPWLDART	N53	2068	2076	HLA-B*07:02	100%	Dengue virus 1	ELISPOT	IFN-g release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
183931	GEAKYVIEL	N53	2003	2012	HLA-B*40:01	100%	Dengue virus 1	ELISPOT	IFN-g release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
183931	VPTVYDMMK	N53	1711	1750	HLA-B*51:01	100%	Dengue virus 1	ELISPOT	IFN-g release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
183931	TPQDANVQD	N53	1803	1810	HLA-B*35:01	100%	Dengue virus 1	ELISPOT	IFN-g release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
183931	HPGSGITFRY	N53	1670	1679	HLA-B*35:01	100%	Dengue virus 1	ELISPOT	IFN-g release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
183931	LENNMDVTE	N53	2049	2058	HLA-A*03:01	100%	Dengue virus 1	ELISPOT	IFN-g release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
183931	MPVQTVAT	N53	1714	1723	HLA-B*35:01	100%	Dengue virus 1	ELISPOT	IFN-g release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
183931	SPVTPVNNYM	N53	1747	1756	HLA-B*35:01	100%	Dengue virus 1	ELISPOT	IFN-g release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
183931	SVNVASG	N53	2023	2031	HLA-B*40:01	100%	Dengue virus 1	ELISPOT	IFN-g release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
183931	VLDGSDYH	N53	1492	1500	HLA-A*02:01	100%	Dengue virus 1	ELISPOT	IFN-g release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
183931	YKSGEDQV	N53	2024	2033	HLA-B*35:01	100%	Dengue virus 1	ELISPOT	IFN-g release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
183931	GTSGSPVIRN	N53	113	142	HLA-B*7:01	100%	Dengue virus 1	51 chromium	cytotoxicity	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
183931	LPWLVSVK	N53	2018	2026	HLA-B*51:01	100%	Dengue virus 1	ELISPOT	IFN-g release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
183931	LIIEAKRTPLFMR	N53	526	540	HLA class I	100%	Dengue virus 1	ELISPOT	IFN-g release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
183931	NIRNANDLAV	N53	1715	1744	HLA-B*1:01	100%	Dengue virus 1	ELISPOT	IFN-g release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
183931	IVDSRICAL	N53	1897	1905	HLA-B*07:02	100%	Dengue virus 1	ELISPOT	IFN-g release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
183931	TPQDNLAV	N54a	2222	2231	HLA-B*07:02	100%	Dengue virus 1	ELISPOT	IFN-g release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
183931	TPQDNLAV	N54a	2222	2230	HLA-B*35:01	100%	Dengue virus 1	ELISPOT	IFN-g release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
183931	LPQVTEAL	N54a	2142	2150	HLA-B*51:01	100%	Dengue virus 1	ELISPOT	IFN-g release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
183931	LPQVTEAL	N54a	2142	2151	HLA-B*35:01	100%	Dengue virus 1	ELISPOT	IFN-g release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
183931	AVRSMREL	N54a	2134	2142	HLA-A*24:02	100%	Dengue virus 1	ELISPOT	IFN-g release	Positive High	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
183931	MLALALAL	N54a	1450	1458	HLA-A2	100%	Dengue virus 1	ELISPOT	IFN-g release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
183931	NPLTALAV	N54b	2348	2356	HLA-B*07:02	100%	Dengue virus 1	ELISPOT	IFN-g release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
183931	VYVDFAEK	N54b	2403	2411	HLA-A*11:01	100%	Dengue virus 1	ELISPOT	IFN-g release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
183931	ILIMRTVLA	N54b	2426	2434	HLA-A2	100%	Dengue virus 1	ELISPOT	IFN-g release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
183931	MANFRSRY	N54b	2466	2474	HLA-B*35:01	100%	Dengue virus 1	ELISPOT	IFN-g release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
183931	VLMVAVTA	N54b	2356	2364	HLA-A2	100%	Dengue virus 1	ELISPOT	IFN-g release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
183931	ILACAGVLA	N54b	2474	2482	HLA-B*07:02	100%	Dengue virus 1	ELISPOT	IFN-g release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
183931	SRNTHDMY	N55	2703	2711	HLA																												

[illegible]

100000	Ameghinella	1026	1019	1017	1016	1015	1014	1013	1012	1011	1010	1009	1008	1007	1006	1005	1004	1003	1002	1001	1000	999	998	997	996	995	994	993	992	991	990	989	988	987	986	985	984	983	982	981	980	979	978	977	976	975	974	973	972	971	970	969	968	967	966	965	964	963	962	961	960	959	958	957	956	955	954	953	952	951	950	949	948	947	946	945	944	943	942	941	940	939	938	937	936	935	934	933	932	931	930	929	928	927	926	925	924	923	922	921	920	919	918	917	916	915	914	913	912	911	910	909	908	907	906	905	904	903	902	901	900	899	898	897	896	895	894	893	892	891	890	889	888	887	886	885	884	883	882	881	880	879	878	877	876	875	874	873	872	871	870	869	868	867	866	865	864	863	862	861	860	859	858	857	856	855	854	853	852	851	850	849	848	847	846	845	844	843	842	841	840	839	838	837	836	835	834	833	832	831	830	829	828	827	826	825	824	823	822	821	820	819	818	817	816	815	814	813	812	811	810	809	808	807	806	805	804	803	802	801	800	799	798	797	796	795	794	793	792	791	790	789	788	787	786	785	784	783	782	781	780	779	778	777	776	775	774	773	772	771	770	769	768	767	766	765	764	763	762	761	760	759	758	757	756	755	754	753	752	751	750	749	748	747	746	745	744	743	742	741	740	739	738	737	736	735	734	733	732	731	730	729	728	727	726	725	724	723	722	721	720	719	718	717	716	715	714	713	712	711	710	709	708	707	706	705	704	703	702	701	700	699	698	697	696	695	694	693	692	691	690	689	688	687	686	685	684	683	682	681	680	679	678	677	676	675	674	673	672	671	670	669	668	667	666	665	664	663	662	661	660	659	658	657	656	655	654	653	652	651	650	649	648	647	646	645	644	643	642	641	640	639	638	637	636	635	634	633	632	631	630	629	628	627	626	625	624	623	622	621	620	619	618	617	616	615	614	613	612	611	610	609	608	607	606	605	604	603	602	601	600	599	598	597	596	595	594	593	592	591	590	589	588	587	586	585	584	583	582	581	580	579	578	577	576	575	574	573	572	571	570	569	568	567	566	565	564	563	562	561	560	559	558	557	556	555	554	553	552	551	550	549	548	547	546	545	544	543	542	541	540	539	538	537	536	535	534	533	532	531	530	529	528	527	526	525	524	523	522	521	520	519	518	517	516	515	514	513	512	511	510	509	508	507	506	505	504	503	502	501	500	499	498	497	496	495	494	493	492	491	490	489	488	487	486	485	484	483	482	481	480	479	478	477	476	475	474	473	472	471	470	469	468	467	466	465	464	463	462	461	460	459	458	457	456	455	454	453	452	451	450	449	448	447	446	445	444	443	442	441	440	439	438	437	436	435	434	433	432	431	430	429	428	427	426	425	424	423	422	421	420	419	418	417	416	415	414	413	412	411	410	409	408	407	406	405	404	403	402	401	400	399	398	397	396	395	394	393	392	391	390	389	388	387	386	385	384	383	382	381	380	379	378	377	376	375	374	373	372	371	370	369	368	367	366	365	364	363	362	361	360	359	358	357	356	355	354	353	352	351	350	349	348	347	346	345	344	343	342	341	340	339	338	337	336	335	334	333	332	331	330	329	328	327	326	325	324	323	322	321	320	319	318	317	316	315	314	313	312	311	310	309	308	307	306	305	304	303	302	301	300	299	298	297	296	295	294	293	292	291	290	289	288	287	286	285	284	283	282	281	280	279	278	277	276	275	274	273	272	271	270	269	268	267	266	265	264	263	262	261	260	259	258	257	256	255	254	253	252	251	250	249	248	247	246	245	244	243	242	241	240	239	238	237	236	235	234	233	232	231	230	229	228	227	226	225	224	223	222	221	220	219	218	217	216	215	214	213	212	211	210	209	208	207	206	205	204	203	202	201	200	199	198	197	196	195	194	193	192	191	190	189	188	187	186	185	184	183	182	181	180	179	178	177	176	175	174	173	172	171	170	169	168	167	166	165	164	163	162	161	160	159	158	157	156	155	154	153	152	151	150	149	148	147	146	145	144	143	142	141	140	139	138	137	136	135	134	133	132	131	130	129	128	127	126	125	124	123	122	121	120	119	118	117	116	115	114	113	112	111	110	109	108	107	106	105	104	103	102	101	100	99	98	97	96	95	94	93	92	91	90	89	88	87	86	85	84	83	82	81	80	79	78	77	76	75	74	73	72	71	70	69	68	67	66	65	64	63	62	61	60	59	58	57	56	55	54	53	52	51	50	49	48	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
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CD8 DENV-3 Epitopes

											NCBI IDs of DENV-3 circulating strains from India, (100% identity=1_green; else 0_red)																			
Epitope_ID	AA_Seq	Protein_Name	Start	End	Allele	step	Serotype	Method/Technique	Assay Group	Qualitative Measure	KDM63678	.AF240126.1	AF240127.1	ANCS57607	.JANC57612.3	QC225021.1	QC225020.1	QC225019.1	QC225016.1	QC225017.1	QBAS57533.1	QEP41653.1	ACV04798	.JAXX75610.1	AXX75612.1	AXX75611.1	AML29863	.JAXX75613.1	QEP41661	QEP41655
180390	CLMMMLPATL	C	104	113	HLA-A*02:01	0%	Dengue virus 3	ELISPOT	IFNγ release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
180609	LMMLMLPATL	C	105	113	HLA-A*02:01	0%	Dengue virus 3	ELISPOT	IFNγ release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
183799	IMKIGIGVLL	E	452	461	HLA-B*08:01	0%	Dengue virus 3	ELISPOT	IFNγ release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
184412	LKGSYAMCL	E	156	165	HLA-B*08:01	0%	Dengue virus 3	ELISPOT	IFNγ release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
186470	WIMKIGIGVL	E	451	460	HLA-B*08:01	0%	Dengue virus 3	ELISPOT	IFNγ release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
185464	RPINKEENM	NS1	1109	1118	HLA-B*35:01	0%	Dengue virus 3	ELISPOT	IFNγ release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
183395	GKXHMIAGVL	NS2a	1153	1162	HLA-B*08:01	0%	Dengue virus 3	ELISPOT	IFNγ release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3124	AMKGLPIRY	NS3	1708	1716	HLA-B62	0%	Dengue virus 3	S1 chromium	cytotoxicity	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
590435	TRVVAEMEAAMKGLPI	NS3	1698	1714	HLA class I	0%	Dengue virus 3	ICS	IFNγ release	Positive-Low	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
180572	KPRLCTREFE	NS5	2879	2888	HLA-B*07:02	0%	Dengue virus 3	ELISPOT	IFNγ release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
180801	VMGITAEWLV	NS5	2862	2871	HLA-B*53:01	0%	Dengue virus 3	ELISPOT	IFNγ release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
186127	TIWEDVWLV	NS5	3321	3329	HLA-A*02:01	0%	Dengue virus 3	ELISPOT	IFNγ release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32944	KPWVDVPTV	NS5	2819	2827	HLA class I	0%	Dengue virus 3	S1 chromium	cytotoxicity	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
180464	FTILALFLAH	PreM	247	256	HLA-B*35:01	100%	Dengue virus 3	ELISPOT	IFNγ release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
180504	HPGFTILALF	PreM	244	253	HLA-B*35:01	100%	Dengue virus 3	ELISPOT	IFNγ release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
185685	SLFKTAGS	PreM	136	144	HLA-B*08:01	100%	Dengue virus 3	ELISPOT	IFNγ release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
180613	LPEEQDQNY	E	82	90	HLA-B*35:01	100%	Dengue virus 3	ELISPOT	IFNγ release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
180617	MLVTPSMTM	E	273	281	HLA-B*35:01	100%	Dengue virus 3	ELISPOT	IFNγ release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
183843	IQKSGTISF	E	131	140	HLA-B*15:01	100%	Dengue virus 3	ELISPOT	IFNγ release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
184399	LATLRKLCI	E	53	61	HLA-B*08:01	100%	Dengue virus 3	ELISPOT	IFNγ release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
184536	LPEYTGLE	E	453	462	HLA-B*35:01	100%	Dengue virus 3	ELISPOT	IFNγ release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
185419	RKMDKLEL	E	148	156	HLA-B*08:01	100%	Dengue virus 3	ELISPOT	IFNγ release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
180537	RPGYHTQT	NS1	1030	1038	HLA-B*07:02	100%	Dengue virus 3	ELISPOT	IFNγ release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
180546	RSCTLPPLRY	NS1	1087	1096	HLA-A*01:01	100%	Dengue virus 3	ELISPOT	IFNγ release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
180738	RYMGEDGCWV	NS1	1095	1104	HLA-A*24:02	100%	Dengue virus 3	ELISPOT	IFNγ release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
182939	EKENMMKSL	NS1	1113	1122	HLA-B*08:01	100%	Dengue virus 3	ELISPOT	IFNγ release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
184685	LKRTTYSGLK	NS1	64	73	HLA-B*08:01	100%	Dengue virus 3	ELISPOT	IFNγ release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
185573	RYMGEDGCW	NS1	1095	1103	HLA-A*24:02	100%	Dengue virus 3	ELISPOT	IFNγ release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
185734	SPKRLATAI	NS1	811	819	HLA-B*08:01	100%	Dengue virus 3	ELISPOT	IFNγ release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
186175	TWRDMAHTLI	NS2a	1174	1183	HLA-A*24:02	100%	Dengue virus 3	ELISPOT	IFNγ release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
182917	EKQFAAGR	NS3	2083	2091	HLA-A*33:01	100%	Dengue virus 3	ELISPOT	IFNγ release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
186234	VEWTKGEK	NS3	2053	2062	HLA-B*40:01	100%	Dengue virus 3	ELISPOT	IFNγ release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
19434	GESKRTVE	NS3	2001	2009	HLA-B7	100%	Dengue virus 3	S1 chromium	cytotoxicity	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
19435	GESKRTVE	NS3	211	220	HLA-B*40:01	100%	Dengue virus 3	ICS	IFNγ release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
22820	GTSGSPINR	NS3	133	142	HLA-A*11:01	100%	Dengue virus 3	S1 chromium	cytotoxicity	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
22821	GTSGSPINR	NS3	133	143	HLA-A11	100%	Dengue virus 3	ICS	IFNγ release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
34605	KYTDRKWCF	NS3	240	248	HLA-A24	100%	Dengue virus 3	ELISPOT	IFNγ release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
62183	SVKKDUSY	NS3	71	79	HLA-B62	100%	Dengue virus 3	S1 chromium	cytotoxicity	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
183165	FFMMVLLIPE	NS4a	2205	2214	HLA-A*33:01	100%	Dengue virus 3	ELISPOT	IFNγ release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
183796	IMKSVGTGK	NS4b	2481	2489	HLA-A*03:01	100%	Dengue virus 3	ELISPOT	IFNγ release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
37534	LLLMRTSWA	NS4b	2423	2431	HLA-A2	100%	Dengue virus 3	biological activity	proliferation	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1807501	KPIDDRFAN	NS5	3158	3166	HLA-B*07:02	100%	Dengue virus 3	ELISPOT	IFNγ release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
180650	METAEWLV	NS5	2863	2871	HLA-B*58:01	100%	Dengue virus 3	ELISPOT	IFNγ release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
180728	RPRLCTREFE	NS5	2879	2888	HLA-B*07:02	100%	Dengue virus 3	ELISPOT	IFNγ release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
182553	ALLALNDMGK	NS5	3167	3176	HLA-A*03:01	100%	Dengue virus 3	ELISPOT	IFNγ release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

CD8 DENV-4 Epitopes

											NCBI IDs of DENV-4 circulating strains from India, (100% identity=1, green ; else 0, red)								
Epitope_ID	AA_Seq	Protein_Name	Start	End	Allele	step	Serotype	Method/Technique	Assay Group	Qualitative Measure	AVW85694	AVW85695	AVW85696	AF240130.1	ANCS7613.1	CBAS7536.1	CC20687.1	AR81829.1	QD258859
180810	VTYECPLLV	PreM	162	170	HLA-A*02:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0
182707	CNLTSTWVMY	PreM	181	190	HLA-A*30:02	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0
186303	VLMMLVAPSY	PreM	17	26	HLA-B*15:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0
185147	NYKERMMVTF	E	511	519	HLA-A*24:02	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0
185817	SWMIRILIGF	E	161	170	HLA-A*24:02	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0
240130	PPASDLKYSW	NS1	880	889	HLA-B*53:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0
167725	AMTTTSLIPHDLMELIDGIS	NS2a	50	69	HLA class I	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0
239411	ALWYVWQVK	NS2b	1463	1471	HLA-A*03:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0
418991	IPVTMALWY	NS2b	1458	1466	HLA-B*35:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0
180640	MALKDFKEF	NS3	2079	2087	HLA-B*35:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0
182563	ALSEGVYRI	NS3	1491	1499	HLA-A*02:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0
186008	TPPGATDPF	NS3	1791	1799	HLA-B*35:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0
186602	YSDPLALRE	NS3	2077	2085	HLA-A*01:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0
239768	GTSGSPIINK	NS3	1607	1616	HLA-A*03:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0
180383	ATGPVLT LW	NS4b	2436	2444	HLA-B*58:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0
180587	LATGPVLT LW	NS4b	2435	2444	HLA-B*53:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0
184375	LGKSYAQMW	NS5	3246	3254	HLA-B*57:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0
419017	MPAMKRYAP	NS5	3371	3380	HLA-B*35:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0
419048	SPRLCTREEF	NS5	2877	2886	HLA-B*07:02	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0	0
182971	EMCEDTVTY	PreM	156	164	HLA-B*35:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1
583701	GVSGGAWVDLVLEHGGCV	E	14	31	HLA class I	100%	Dengue virus 4	ICS	IFNg release	Positive-Low	1	1	1	1	1	1	1	1	1
183667	IEKASLIEV	NS1	986	994	HLA-B*40:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1
185050	NFLEVEDYGF	NS1	925	934	HLA-A*24:02	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1
182562	ALPVYLMTL	NS2a	1329	1337	HLA-A*02:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1
184566	LPVYLMTLMK	NS2a	1330	1339	HLA-B*35:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1
182901	EETNMITLL	NS2b	1434	1442	HLA-B*40:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1
186584	YPLAIPVTM	NS2b	1454	1462	HLA-B*53:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1
156711	LAPTRVVAEMEEL	NS3	1695	1709	HLA-B7	100%	Dengue virus 4	51 chromium	cytotoxicity	Positive	1	1	1	1	1	1	1	1	1
180473	GFRLRGEQR	NS3	1995	2004	HLA-B*40:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1
180648	MEGVFHTMW	NS3	1516	1524	HLA-B*44:03	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1
180778	TPEGIPTLF	NS3	1974	1983	HLA-B*07:02	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1
180843	YPKTKLTDWD	NS3	1868	1877	HLA-B*35:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1
182919	EFRLRGEQR	NS3	1996	2004	HLA-A*33:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1
183407	GLFGKTQGVG	NS3	1503	1512	HLA-A*02:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1
183427	GLYGNGVVTK	NS3	1622	1631	HLA-A*03:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1
184079	KLTDWDFVW	NS3	398	406	HLA-A*02:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1
186347	VPNNYLIVM	NS3	1749	1757	HLA-B*35:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1
195838	PNYNLIVMDEAHFTD	NS3	1750	1764	HLA class I	100%	Dengue virus 4	ICS	IFNg release	Positive	1	1	1	1	1	1	1	1	1
22822	GTSGSPIINRK	NS3	133	143	HLA-A11	100%	Dengue virus 4	51 chromium	cytotoxicity	Positive	1	1	1	1	1	1	1	1	1
34918	LAPTRVVAEME	NS3	221	232	HLA-B7	100%	Dengue virus 4	51 chromium	cytotoxicity	Positive	1	1	1	1	1	1	1	1	1
539058	AHFTDPSSVAARGYST	NS3	1760	1776	HLA class I	100%	Dengue virus 4	ICS	IFNg release	Positive	1	1	1	1	1	1	1	1	1
539576	LIVMDEAHFTDPSSVAA	NS3	1754	1770	HLA class I	100%	Dengue virus 4	ICS	IFNg release	Positive	1	1	1	1	1	1	1	1	1
540029	VEMGEAAAFMTATPPG	NS3	1778	1794	HLA class I	100%	Dengue virus 4	ICS	IFNg release	Positive	1	1	1	1	1	1	1	1	1
581940	APTRVVAEMEELRGL	NS3	1558	1574	HLA class I	100%	Dengue virus 4	ICS	IFNg release	Positive-Low	1	1	1	1	1	1	1	1	1
65552	TPEGIPTLF	NS3	500	508	HLA-B*35:01	100%	Dengue virus 4	51 chromium	cytotoxicity	Positive	1	1	1	1	1	1	1	1	1
182926	EIASLPTYL	NS4a	2101	2109	HLA-A*68:02	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1
184531	LPESLETML	NS4a	2140	2149	HLA-B*35:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1
185881	TEIASLPTYL	NS4a	2100	2109	HLA-B*40:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1
186620	YVILTILT	NS4a	2228	2236	HLA-A*24:02	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1
150647	TPMLRHTIEN	NS4b	2288	2297	HLA-B*07:02	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1
180379	ATGPILT LW	NS4b	2436	2444	HLA-B*58:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1
180764	TETITLVDL	NS4b	2262	2271	HLA-B*40:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1
180803	VPLLAMGCY	NS4b	2330	2338	HLA-B*35:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1
183672	IENTSANLSL	NS4b	2295	2304	HLA-B*40:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1
184453	LLLMRTTWAF	NS4b	2420	2429	HLA-A*24:02	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1
184713	LYAVATITL	NS4b	2279	2287	HLA-A*24:02	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1
186330	VMLLVHYAI	NS4b	2351	2359	HLA-A*24:02	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1

37535	LLLMRTTWA	NS4b	76	84	HLA-A2	100%	Dengue virus 4	ICS	TNF release	Positive	1	1	1	1	1	1	1	1
40472	LVMLLVHYA	NS4b	6	14	HLA-A2	100%	Dengue virus 4	ICS	IFNg release	Positive	1	1	1	1	1	1	1	1
1067215	HSWEDIPYL	NS5	3319	3327	HLA-A*02:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1
180684	NPRLCTREEF	NS5	2877	2886	HLA-B*07:02	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1
180718	REDLWCGSL	NS5	3330	3338	HLA-B*40:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1
183353	GESSNPTI	NS5	2635	2643	HLA-B*44:02	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1
183570	HEMYWVSGV	NS5	2703	2711	HLA-B*44:02	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1
184051	KLGEFGRK	NS5	2948	2956	HLA-A*03:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1
184130	KREDLWCGSL	NS5	3329	3338	HLA-B*08:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1
184954	MTTEDMLKVW	NS5	3292	3301	HLA class I	100%	Dengue virus 4	ICS	IFNg release	Positive	1	1	1	1	1	1	1	1
186453	WEPKSGWKNNW	NS5	3182	3191	HLA-B*44:02	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1
186550	YDQENPYRTW	NS5	2781	2790	HLA-B*44:02	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1
186640	YYMATLKNNV	NS5	2576	2584	HLA-A*24:02	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1
186641	YYMATLKNVT	NS5	2576	2585	HLA-A*24:02	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1
539656	MAISGDDCVVKPLDERF	NS5	3146	3162	HLA class I	100%	Dengue virus 4	ICS	IFNg release	Positive	1	1	1	1	1	1	1	1
539703	MVTQLAMTDITPFGQQR	NS5	2824	2840	HLA class I	100%	Dengue virus 4	ICS	IFNg release	Positive	1	1	1	1	1	1	1	1
180475	GEQRKTFVEL	NS3	2001	2010	HLA-B*40:01	81% - <100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	0	1
183231	FPQSNSPIED	NS3	1799	1808	HLA-B*35:01	81% - <100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	0	1
183338	GEIGAVTLDF	NS3	1595	1604	HLA-B*44:03	81% - <100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	1	1
62616	SYKDREWCF	NS3	389	397	HLA-A24	81% - <100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	0	1
180596	LETLMVALL	NS4a	2144	2153	HLA-B*40:01	81% - <100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	1	1	1	1
182508	AIASVGLLW	NS4a	2179	2188	HLA-B*44:02	81% - <100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	1	1
183650	IAVASGLLW	NS4a	2180	2188	HLA-B*57:01	81% - <100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	1	1
42083	MLVALLGAM	NS4a	56	64	HLA-A2	81% - <100%	Dengue virus 4	ICS	IFNg release	Positive	1	1	1	1	0	1	1	1
136826	CYSQVNPTTL	NS4b	2337	2346	HLA-A*24:02	81% - <100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	1	1
150548	RSNAAIGAVF	NS5	2891	2900	HLA-B*15:01	81% - <100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	0	1	1	1
185232	QEEHKETWHY	NS5	2772	2781	HLA-B*44:02	81% - <100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	1	1
539149	DCVVKPLDERFSTSLLF	NS5	3152	3168	HLA class I	81% - <100%	Dengue virus 4	ICS	IFNg release	Positive	1	1	1	1	1	0	1	1
184591	LSIPHDLMEF	NS2a	1239	1248	HLA-A*01:01	51%-80%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	1	1	1	1	1	0	0
180850	YTPGIIPTL	NS3	1973	1982	HLA-A*02:06	51%-80%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	1	0	1	1	1	1	1
180541	ITLLCLIPTV	C	102	111	HLA-A*02:01	>0% - 50%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	0	0	0	1	1	0	0
183818	IPHDLMELI	NS2a	1241	1249	HLA-B*53:01	>0% - 50%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	0	0	0	0	1	1	0
184390	LIDGISLGL	NS2a	1248	1256	HLA-A*01:01	>0% - 50%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	0	0	0	0	1	1	0

Supplementary Table S4. Globally reported dengue specific CD4 and CD8 T cell epitopes that are present in each of the six different dengue vaccine candidates. Detailed information of the full-length sequences of the vaccine constructs for each of the six vaccines and all four serotypes within each vaccine is provided. Next, portion provides the identity of each of the globally reported CD4 epitopes and CD8 epitopes in each of the six vaccine candidates. Green color shade and number 1 indicates 100% identity in the given vaccine construct. Pink color shade and number zero indicates not identical in the given vaccine construct.

Vaccine Information

	Accession	Strain name	NCBI ID	Country	Complete Sequence	AA Seq
DENV-1	NAU054343.1	Naura Island Western Pacific 4542S	NP_054343.1	N/A	Yes	MINNQRKGTGPPSNMLKRRNRNVSTGQAKRFSGLGSGDGPMLVMAAFILRFLPATTAGLAWGTGSKXANVLGRFKESNMNNRRKRSYTMLLMLPTLAHLTRTGGEPHVMVSGKRGSKLLTSKAGVMCTLUMDGLGEMDCTMYKCPTRTEEDVDCVNCATNEVTVYTCQGTGGEHRDRKRSVALPHVGLGTRTETVMSSEGAAGKQIVETWALRHPGTGTFIALFAHGTSTQGVITFLLVPTSPAMMRVCYGNDRVNEGVSATVVDVHSGCTVMAKNPTDLIELKTETPAALRLCKEASNTTQPTGDEATVEEDTNGPKRVDYWGNGVGGNGGLGKSGATGCTCAKCYVFLKEDGQVHVKRTIVYVTHGGHGTQNETGHTTATTPQWQSLTDYQALTDLCSPHTGDNNMLTKMKXSVLWVKQDLPFLPWPGATGTSFTVMNRQDLVYTKTHAKRQVYLVGSGEGAMTALTATGTGTGTTFAGHLKRLAMDLLEGUQVYCTGSEGTGELAVTQNTLQVQKTEGAPCGSPGSDRGRNENLTVYPTKSPNEAPAGPTGSPKALAAAGVAGAKLSLWYKKGSSGGMKEFATARGARMALGDTAWDVGSGGVTGVLHGHTGTATGVLFGVSTVMKIGDITGLTWGLNKRSTLSMTCIAGVMNLYLVNQVAGQSCVNMVKRGLEKCGSGGTYNEVHTWTEQZQDAPSKRLAAGVANGWGCGRSARTLENNMVKQSNELNHLNEMDKMTVTVGDSVSGLAGGKKMRPQMKHVSXWKGKMGAGQITDTPDPTPEPCDNQKRWANVSDYEGDGTGFTWNLKKNDSYTKDCHRLMAAKSDAAVAMHAWSEKENTHAKLEASIFCYVTPPSHTLVSDNHLSESMIRPQKQSDKNRYQPTQDZAGVHNLGDNQVTVYVTVGSDVHNGKQVNTLQVQKTEGAPCGSPGSDRGRNENLTVYPTKSPNEAPAGPTGSPKALAAAGVAGAKLSLWYKKGSSGGMKEFATARGARMALGDTAWDVGSGGVTGVLHGHTGTATGVLFGVSTVMKIGDITGLTWGLNKRSTLSMTCIAGVMNLYLVNQVAGQSCVNMVKRGLEKCGSGGTYNEVHTWTEQZQDAPSKRLAAGVANGWGCGRSARTLENNMVKQSNELNHLNEMDKMTVTVGDSVSGLAGGKKMRPQMKHVSXWKGKMGAGQITDTPDPTPEPCDNQKRWANVSDYEGDGTGFTWNLKKNDSYTKDCHRLMAAKSDAAVAMHAWSEKENTHAKLEASIFCYVTPPSHTLVSDNHLSESMIRPQKQSDKNRYQPTQDZAGVHNLGDNQVTVYVTVGSDVHNGKQVNTLQVQKTEGAPCGSPGSDRGRNENLTVYPTKSPNEAPAGPTGSPKALAAAGVAGAKLSLWYKKGSSGGMKEFATARGARMALGDTAWDVGSGGVTGVLHGHTGTATGVLFGVSTVMKIGDITGLTWGLNKRSTLSMTCIAGVMNLYLVNQVAGQSCVNMVKRGLEKCGSGGTYNEVHTWTEQZQDAPSKRLAAGVANGWGCGRSARTLENNMVKQSNELNHLNEMDKMTVTVGDSVSGLAGGKKMRPQMKHVSXWKGKMGAGQITDTPDPTPEPCDNQKRWANVSDYEGDGTGFTWNLKKNDSYTKDCHRLMAAKSDAAVAMHAWSEKENTHAKLEASIFCYVTPPSHTLVSDNHLSESMIRPQKQSDKNRYQPTQDZAGVHNLGDNQVTVYVTVGSDVHNGKQVNTLQVQKTEGAPCGSPGSDRGRNENLTVYPTKSPNEAPAGPTGSPKALAAAGVAGAKLSLWYKKGSSGGMKEFATARGARMALGDTAWDVGSGGVTGVLHGHTGTATGVLFGVSTVMKIGDITGLTWGLNKRSTLSMTCIAGVMNLYLVNQVAGQSCVNMVKRGLEKCGSGGTYNEVHTWTEQZQDAPSKRLAAGVANGWGCGRSARTLENNMVKQSNELNHLNEMDKMTVTVGDSVSGLAGGKKMRPQMKHVSXWKGKMGAGQITDTPDPTPEPCDNQKRWANVSDYEGDGTGFTWNLKKNDSYTKDCHRLMAAKSDAAVAMHAWSEKENTHAKLEASIFCYVTPPSHTLVSDNHLSESMIRPQKQSDKNRYQPTQDZAGVHNLGDNQVTVYVTVGSDVHNGKQVNTLQVQKTEGAPCGSPGSDRGRNENLTVYPTKSPNEAPAGPTGSPKALAAAGVAGAKLSLWYKKGSSGGMKEFATARGARMALGDTAWDVGSGGVTGVLHGHTGTATGVLFGVSTVMKIGDITGLTWGLNKRSTLSMTCIAGVMNLYLVNQVAGQSCVNMVKRGLEKCGSGGTYNEVHTWTEQZQDAPSKRLAAGVANGWGCGRSARTLENNMVKQSNELNHLNEMDKMTVTVGDSVSGLAGGKKMRPQMKHVSXWKGKMGAGQITDTPDPTPEPCDNQKRWANVSDYEGDGTGFTWNLKKNDSYTKDCHRLMAAKSDAAVAMHAWSEKENTHAKLEASIFCYVTPPSHTLVSDNHLSESMIRPQKQSDKNRYQPTQDZAGVHNLGDNQVTVYVTVGSDVHNGKQVNTLQVQKTEGAPCGSPGSDRGRNENLTVYPTKSPNEAPAGPTGSPKALAAAGVAGAKLSLWYKKGSSGGMKEFATARGARMALGDTAWDVGSGGVTGVLHGHTGTATGVLFGVSTVMKIGDITGLTWGLNKRSTLSMTCIAGVMNLYLVNQVAGQSCVNMVKRGLEKCGSGGTYNEVHTWTEQZQDAPSKRLAAGVANGWGCGRSARTLENNMVKQSNELNHLNEMDKMTVTVGDSVSGLAGGKKMRPQMKHVSXWKGKMGAGQITDTPDPTPEPCDNQKRWANVSDYEGDGTGFTWNLKKNDSYTKDCHRLMAAKSDAAVAMHAWSEKENTHAKLEASIFCYVTPPSHTLVSDNHLSESMIRPQKQSDKNRYQPTQDZAGVHNLGDNQVTVYVTVGSDVHNGKQVNTLQVQKTEGAPCGSPGSDRGRNENLTVYPTKSPNEAPAGPTGSPKALAAAGVAGAKLSLWYKKGSSGGMKEFATARGARMALGDTAWDVGSGGVTGVLHGHTGTATGVLFGVSTVMKIGDITGLTWGLNKRSTLSMTCIAGVMNLYLVNQVAGQSCVNMVKRGLEKCGSGGTYNEVHTWTEQZQDAPSKRLAAGVANGWGCGRSARTLENNMVKQSNELNHLNEMDKMTVTVGDSVSGLAGGKKMRPQMKHVSXWKGKMGAGQITDTPDPTPEPCDNQKRWANVSDYEGDGTGFTWNLKKNDSYTKDCHRLMAAKSDAAVAMHAWSEKENTHAKLEASIFCYVTPPSHTLVSDNHLSESMIRPQKQSDKNRYQPTQDZAGVHNLGDNQVTVYVTVGSDVHNGKQVNTLQVQKTEGAPCGSPGSDRGRNENLTVYPTKSPNEAPAGPTGSPKALAAAGVAGAKLSLWYKKGSSGGMKEFATARGARMALGDTAWDVGSGGVTGVLHGHTGTATGVLFGVSTVMKIGDITGLTWGLNKRSTLSMTCIAGVMNLYLVNQVAGQSCVNMVKRGLEKCGSGGTYNEVHTWTEQZQDAPSKRLAAGVANGWGCGRSARTLENNMVKQSNELNHLNEMDKMTVTVGDSVSGLAGGKKMRPQMKHVSXWKGKMGAGQITDTPDPTPEPCDNQKRWANVSDYEGDGTGFTWNLKKNDSYTKDCHRLMAAKSDAAVAMHAWSEKENTHAKLEASIFCYVTPPSHTLVSDNHLSESMIRPQKQSDKNRYQPTQDZAGVHNLGDNQVTVYVTVGSDVHNGKQVNTLQVQKTEGAPCGSPGSDRGRNENLTVYPTKSPNEAPAGPTGSPKALAAAGVAGAKLSLWYKKGSSGGMKEFATARGARMALGDTAWDVGSGGVTGVLHGHTGTATGVLFGVSTVMKIGDITGLTWGLNKRSTLSMTCIAGVMNLYLVNQVAGQSCVNMVKRGLEKCGSGGTYNEVHTWTEQZQDAPSKRLAAGVANGWGCGRSARTLENNMVKQSNELNHLNEMDKMTVTVGDSVSGLAGGKKMRPQMKHVSXWKGKMGAGQITDTPDPTPEPCDNQKRWANVSDYEGDGTGFTWNLKKNDSYTKDCHRLMAAKSDAAVAMHAWSEKENTHAKLEASIFCYVTPPSHTLVSDNHLSESMIRPQKQSDKNRYQPTQDZAGVHNLGDNQVTVYVTVGSDVHNGKQVNTLQVQKTEGAPCGSPGSDRGRNENLTVYPTKSPNEAPAGPTGSPKALAAAGVAGAKLSLWYKKGSSGGMKEFATARGARMALGDTAWDVGSGGVTGVLHGHTGTATGVLFGVSTVMKIGDITGLTWGLNKRSTLSMTCIAGVMNLYLVNQVAGQSCVNMVKRGLEKCGSGGTYNEVHTWTEQZQDAPSKRLAAGVANGWGCGRSARTLENNMVKQSNELNHLNEMDKMTVTVGDSVSGLAGGKKMRPQMKHVSXWKGKMGAGQITDTPDPTPEPCDNQKRWANVSDYEGDGTGFTWNLKKNDSYTKDCHRLMAAKSDAAVAMHAWSEKENTHAKLEASIFCYVTPPSHTLVSDNHLSESMIRPQKQSDKNRYQPTQDZAGVHNLGDNQVTVYVTVGSDVHNGKQVNTLQVQKTEGAPCGSPGSDRGRNENLTVYPTKSPNEAPAGPTGSPKALAAAGVAGAKLSLWYKKGSSGGMKEFATARGARMALGDTAWDVGSGGVTGVLHGHTGTATGVLFGVSTVMKIGDITGLTWGLNKRSTLSMTCIAGVMNLYLVNQVAGQSCVNMVKRGLEKCGSGGTYNEVHTWTEQZQDAPSKRLAAGVANGWGCGRSARTLENNMVKQSNELNHLNEMDKMTVTVGDSVSGLAGGKKMRPQMKHVSXWKGKMGAGQITDTPDPTPEPCDNQKRWANVSDYEGDGTGFTWNLKKNDSYTKDCHRLMAAKSDAAVAMHAWSEKENTHAKLEASIFCYVTPPSHTLVSDNHLSESMIRPQKQSDKNRYQPTQDZAGVHNLGDNQVTVYVTVGSDVHNGKQVNTLQVQKTEGAPCGSPGSDRGRNENLTVYPTKSPNEAPAGPTGSPKALAAAGVAGAKLSLWYKKGSSGGMKEFATARGARMALGDTAWDVGSGGVTGVLHGHTGTATGVLFGVSTVMKIGDITGLTWGLNKRSTLSMTCIAGVMNLYLVNQVAGQSCVNMVKRGLEKCGSGGTYNEVHTWTEQZQDAPSKRLAAGVANGWGCGRSARTLENNMVKQSNELNHLNEMDKMTVTVGDSVSGLAGGKKMRPQMKHVSXWKGKMGAGQITDTPDPTPEPCDNQKRWANVSDYEGDGTGFTWNLKKNDSYTKDCHRLMAAKSDAAVAMHAWSEKENTHAKLEASIFCYVTPPSHTLVSDNHLSESMIRPQKQSDKNRYQPTQDZAGVHNLGDNQVTVYVTVGSDVHNGKQVNTLQVQKTEGAPCGSPGSDRGRNENLTVYPTKSPNEAPAGPTGSPKALAAAGVAGAKLSLWYKKGSSGGMKEFATARGARMALGDTAWDVGSGGVTGVLHGHTGTATGVLFGVSTVMKIGDITGLTWGLNKRSTLSMTCIAGVMNLYLVNQVAGQSCVNMVKRGLEKCGSGGTYNEVHTWTEQZQDAPSKRLAAGVANGWGCGRSARTLENNMVKQSNELNHLNEMDKMTVTVGDSVSGLAGGKKMRPQMKHVSXWKGKMGAGQITDTPDPTPEPCDNQKRWANVSDYEGDGTGFTWNLKKNDSYTKDCHRLMAAKSDAAVAMHAWSEKENTHAKLEASIFCYVTPPSHTLVSDNHLSESMIRPQKQSDKNRYQPTQDZAGVHNLGDNQVTVYVTVGSDVHNGKQVNTLQVQKTEGAPCGSPGSDRGRNENLTVYPTKSPNEAPAGPTGSPKALAAAGVAGAKLSLWYKKGSSGGMKEFATARGARMALGDTAWDVGSGGVTGVLHGHTGTATGVLFGVSTVMKIGDITGLTWGLNKRSTLSMTCIAGVMNLYLVNQVAGQSCVNMVKRGLEKCGSGGTYNEVHTWTEQZQDAPSKRLAAGVANGWGCGRSARTLENNMVKQSNELNHLNEMDKMTVTVGDSVSGLAGGKKMRPQMKHVSXWKGKMGAGQITDTPDPTPEPCDNQKRWANVSDYEGDGTGFTWNLKKNDSYTKDCHRLMAAKSDAAVAMHAWSEKENTHAKLEASIFCYVTPPSHTLVSDNHLSESMIRPQKQSDKNRYQPTQDZAGVHNLGDNQVTVYVTVGSDVHNGKQVNTLQVQKTEGAPCGSPGSDRGRNENLTVYPTKSPNEAPAGPTGSPKALAAAGVAGAKLSLWYKKGSSGGMKEFATARGARMALGDTAWDVGSGGVTGVLHGHTGTATGVLFGVSTVMKIGDITGLTWGLNKRSTLSMTCIAGVMNLYLVNQVAGQSCVNMVKRGLEKCGSGGTYNEVHTWTEQZQDAPSKRLAAGVANGWGCGRSARTLENNMVKQSNELNHLNEMDKMTVTVGDSVSGLAGGKKMRPQMKHVSXW

DENVax						<p>MNNQBKKAKNTFNNMLKRRNRNVTSQQLTKRPSGLMLQGRGP.LKLFMAALVFLRFTPTTPTAGLKRWGTIKKSAINVLRGRKEDGRMLNRRRRSAGIMLJPTVMAHLLTRNGEPHIMVSRQBXGLKFKTTFDGVNMCTLMAMD.LGELCEDTITYKC</p> <p>PLRKQNEIDEDWCNISTWVYTGICTMGEHRRKRSVALVPHVGGGLGLETRETETWMSSEGAWKHVQREITVILHHPGFTNMAALATYGTTFEQALFILLTAVTPSMTRCICQMSMRDHYEGVSGSVSDVHLEHSGCTVIMAKNPTLDFELKLTAKCP</p> <p>ATLRLCYEAKLTNTTTEKCP.TQSGPSLAEQDQVCHVSHMWONGNGGLGFGGGVCTAFMPCCKNMKGAVKQVPPNLTFTVTPHSGEHVANGDTQAGHGETKTPQGSSTAEALTGYCTVMECPSTQDPMENKLLDMHAKNANLVHRQWFLDPLP</p> <p>WLPDAGTQSGSNWIKETLVTFNKNHAKQDVVVLGSGEGAMHITALTGATEIQHSSGNLLFTGHLKCLRLRMKDLQLKGMSYSACTGKFKVKKEAETHQCTVTRVQVQEGDQSGCPKCFEIMDLKRRH.LGNLTVPNPTKEDSPVNEIAPFPFGDSYHIVGEPGL</p> <p>KLNVFKYKGGSSQMFETTRMGAKRMALGDTAWDFSGSLGDDVTSIGKALHQFGYGAAPGSVSWTMKILGVITWIGMNSRSTLSVTLVGVITVLGVMMQADQSGCVSWNNKELCCSGGFTNDHNTWTEQYKQFQSPESKLASAQKHAHEEGCGRSV</p> <p>TRLEMLMKWQPTPLNMLSENEVLTMTDQKGMAGKSLPQPTLEYSWYTGAAJMLSTEDHNGZFLTDGPTACCPNTNNAWHLSEYDYSQVFTTNWHLKEXQDVDCSSLSMSAANDNAHADQHWIESALNDTKHEKASFEVKNCHW</p> <p>PKSHLTWSNGVLESEMI.PKNLAGVPSQHNVRPGVHTQTGPWH.LKLEMDFOCDGTVTVTEDCGNRGPSLRTTAGSKLITEWCSCSCTPLPLRREGDGCWVGMERPLKKEENLNSVLSYTAGHQGVQDNFSLGVLMALFLEMLRTNTRTGHAILLVAVS</p> <p>FVTLITGNMFSRDLGRVMMVATMTDDIGMGVYTLALLAFAKVRPTFAAGLLRLKLSKELMMTTGIVLSQZTIFETLELTDALAGMMVLMVMRNMEXQLAVTMMALCVPAVILQNAVQVSTLAVVSPVLLTSSQOKTQWIP.LTKIGLNP.TAFLT</p> <p>TLSDTSKRWKSWP.NEAMAGVYALASLLKNDNPMTGFLVAGGLTVCYW.TGSDADLEERAQDWWEDQAEQSGSSPLSTISDGSMSHNEEELCTLTILRTGLLSVGLSPVSPITAAWYLVWVWKQABGLW.DWDPFPFPMG.ALEEDGAVRKQKIGLY</p> <p>SGSGADQVYEGETHVMMVHTGALMHRGKRIEPPVMDVWGLDVSVEGGWVLEGEWKEEGEEDQAL.EPFGNPPAAVOTPLSLFTTACGTIGASLQSDPSCTSGSPHKKKGLVGEVNGO.VTSSGAVNSHAJTEKEDNEPDEQDFKRBRLTMDL.HPGAGAT</p> <p>KRYLPAIVREAKRG.LRTLAPTRVAAEMEARLPLRQYTPAIRAETHGREIVDLMCHATTMBLLSPVVPNNLIMDEAHTDPASAARGVSTRVEMGEAGFMATPPGSRDPFQSNAPIDDEREPEBSWSEHWEVTDPRGKTVAVFVPSKAGNDI</p> <p>JAELCRNGKVKVLSKRTDSEYKVKTRNDWDVFTVTDISENANFKAERVDKPRCKMKPVLT.DGEVVLAGMPVTHSSAQRGRGKGNPKNENQDYMGEPLINDEDCAHWWEAMLLDNINTPLEGIPSMFPEREKVDAIDGERPLRGEAKTPYDOLMR</p> <p>RSQD.PVWLAVYVAGVAGVADNRVCFQGVNNKQLENVDEIKTEGERKLLPWNLDARYOPLALKEKFEFAKGSKLTMLTJENGRPTMTQKQALDNLAVJITADAGGAVNALSEL.PETLITLLTLATYTGSGFLRNGSGKMTLQMCCH</p> <p>TASILLWYAQIOPHHVAAISILEFFLVLLIPEPEKQTPQDNGLTYVAALTVVAATMANEMGFLKTXDKDLGSGIATQQFESNILDIDLRPASAWLYAVATTFVPM.LRHSIENSNNVSLTAANQATVLMGLGKSWPLKMDIOPV.LLAGCYQZQNPTLTAALF</p> <p>LLVAVYAIQGLQKATREAQKRAAGIMKNPVDGTVLDPPDPKFEKQLGVMLLVLYCQVLMKRTWALCFALTATGPSTLWEGNPRGFWNITLAVSMANFRGJLAGALFSIMKNTNTRRGTGNGIGLETGKWSKRNALGKSEFQYKXSG</p> <p>IQEDORTLAREGKGETDHHAVSGASLNPVFNENAVYFEGVLDGCCRGWSYTCGLNVRKVLTYGSGPHEPPEHSTGVNWLVLGGVDFVPPKCCD.LTCIGESNPPTVEAGATLVN.LNVEWLNWNTQCKVCLNPPMPSVHERMEAL</p> <p>QKRYSGALVRNPLRSNSTHEHMMVSNASGNVSVNMSRMLNRTMYRK.KATYEPDVLGSGTRNIGISEPNLD.HIGKRIEKQJQHETSWHYDQDHPKYTWAWHYSYETKQTSASSANWNGVWV.LTKP.WDVP.MV.TQMAMITDTPFGQORVFEKVDTR</p> <p>TOEPKEGKTKL.MKITAEWLWELCKKTPRMCTREETRVKYSNAALGAFTDENKWSAREAVEDSRFVELVDKERNLHLEGKCTCVNMMGKREKILGEFGAAK.GSAWYMW.LGARLFEALGFLNEDNHWFSRENLSGVEGEGHLYLRDVSKEG</p> <p>GAWYADDTADWDTRITLEDLKNEMVTHNMEGKHLLAJAFKLTQNKVYRVQRP.PRGTVMDHSRRDQSGQZVGTGLNTFTNMEALJRMQEGEGVYQKLTITTEIAJONWLARQGERLSMAAGSDGVVPLDQFASALDMLMGKLRQDQ</p> <p>QWFSRQWQWVTVQTFQZSHFHELJMKDGRVLYPCNNDQLGRARISQAGVCLRETKLCSHQZQWVSLMPTHRSQDLAAACASVPSHWVPTSTRTVWSHAKHEWMTTEMLTNWNVWQBPWMEDETPVESHKEPFLGREGDQWCSGL</p> <p>GLTSRATWAKQAQINQVRSIGNEEYDYMPMSMRFRREEEAGVLW</p>
TVQV	DENV-1	Nauru Island Western Pacific 45AZS	NP_72460.2	N/A	Yes	<p>MIRCVGNGNDFVEGLSGATVVDVVLHGGCVYTMAKNPTLDELKTEATQLATRLK.CIEGKNTITTDSSRCPTQGEALTVEEQDTNFCRRTPYDRGWGNGCG.LFGKGLSTCAKFCVTKLEGKIVYENLKYSVIVTVMHQDQHVNETTEHGTATTTPQAP</p> <p>TSEQLTGYGALT.DCSPHTGLDFNEMVLLTMKKXSWLVYH.QWFLDPLPWTSAGTSASTQBNWRQD.LLVTKTAHAKQEVVVLGSGEGAMHITALTGATEIQSGTSIFAGHLKCLRMKDLKLGMSYAMCTLTVLKKVESETQHTLVQVYKTEGTDAPCKIP</p> <p>PHSSQDQGVYQWQRLTANPVYTKKEEPMNEADPPGDEIVYGAERALKSWKXSSGKMEATARGARRMAL.GDTAWDFSGVGGVYVLSLGR.MYHQIFGYSATLAFSGVSWMKGIGVLLVWGLNKNMTSMSCSAGIHTLVGVVQVHMLTSDRGEPR</p> <p>PHMVSQBERKSLFKTSAGVMNCTLAMLD.GELCEDTMYTKVCRITTEP.DDVCNCAETWTVYTGCTQSGTGEHRRKRSVALAPHVSLGLETRTETVMSSEGAWKHQVQVETVLAHPHFATVLAHAHQSTQKQGIIFLLMLVTPSMA</p>
	DENV-3	H87	VIPR_ALG4_323525_499_1977.1	Brazil	No	<p>MIRCVGNGNDFVEGLSGATVVDVVLHGGCVYTMAKNPTLDELKTEATQLATRLK.CIEGKNTITTDSSRCPTQGEALTVEEQDQNVYCKHYVDRGWGNGCG.LFGKGLSTCAKFCVTKLEGKIVYENLKYSVIVTVMHQDQHVNETQVYTABTSQAST</p> <p>AEALPEYGTGLECSPRTGLDFNEMVLLTMKNKAWMMHRQWFFDLPWPWTSGATTEPTNWRKELLVTKNAHAKQEVVVLGSGEGAMHITALTGATEIQSGTSIFAGHLKCLRMKDLKLGMSYAMCTLTVLKKVESETQHTLVQVYKTEGTDAPCKIP</p> <p>STEDGQZGQAHNRGTANPVYTKKEEPMNEADPPGDEIVYGAERALKSWKXSSGKMEATARGARRMAL.GDTAWDFSGVGGVYVLSLGR.MYHQIFGYSATLAFSGVSWMKGIGVLLVWGLNKNMTSMSCSAGIHTLVGVVQVHMLTSDRGEPR</p> <p>MYGFSRQWQWVTVQTFQZSHFHELJMKDGRVLYPCNNDQLGRARISQAGVCLRETKLCSHQZQWVSLMPTHRSQDLAAACASVPSHWVPTSTRTVWSHAKHEWMTTEMLTNWNVWQBPWMEDETPVESHKEPFLGREGDQWCSGL</p>
	DENV-4	H241	VIPR_ALG4_61652905_931_2415.1	Philippines	Yes	<p>MIRCVGNGNDFVEGSGGAWDVLVHGGCVYTMAGKQKPLTDFELKTTAK.EVALLRTYCEASSNITTATRCPTQSGEPLKEEQDQDQYCRDQVDRGWGNGCG.LFGKGLSTCAKFCVTKLEGKIVYENLKYSVIVTVMHQDQHVNETQVYTABTSQAST</p> <p>SPSVLVL.PDYGLTLDCEPSGDFNEMLMKMKXSWLVYH.QWFLDPLPWAGADTYEDWNNKERNMTRVPHAKRQVTVV.GSGEGAMHITALTGATEIQSGTSIFAGHLKCLRMKDLKLGMSYAMCTLTVLKKVESETQHTLVQVYKTEGTDAPCKIP</p> <p>JAGAPCVPIERBDVNEK.EKVGRISSTPFAEYTNVSNVLEPPFGDSYVGVGDSAL.THWFKSGSGKMLESTRMGAKRMAL.GDTAWDFSGVGGVYVLSLGR.MYHQIFGYSATLAFSGVSWMKGIGVLLVWGLNKNMTSMSCSAGIHTLVGVVQVHMLTSDRGEPR</p> <p>STRDGEPMVIAHGERGRPLPKTTTEGNKCTLIAMDLEGMEDTVYECPLNTTEPDEIDCWNLTSAWVMYGTCTQSGERRRKRKSVLTPHSGMGLTETRAEVMSSSEGAWKHQVQVETVLAHPHFATVLAHAHQSTQKQGIIFLLMLVTPSMA</p>
	DENV-2	ngc-2007	QBK46951.1	Thailand	Yes	<p>PHLTRNGEPHIMVSRQBXGLKFKTTFDGVNMCTLMAMD.LGELCEDTITYKC.PFLKQNEIDEDWCNISTWVYTGICTTTEHRRKRSVALVPHVGGGLGLETRETETWMSSEGAWKHVQREITVILHHPGFTNMAALATYGTTFEQALFILLTAVTPSM</p> <p>TRCICQMSMRDHYEGVSGSVSDVHLEHSGCTVIMAKNPTLDFELKLTAKQPLATLRYKCEAKLTNTTDSRCPTQSGEPLNEEQDKRVCVCHSMVDRGWGNGCG.LFGKGLSTCAKFCVTKLEGKIVYENLKYSVIVTVMHQDQHVNETTEHGTATTTPQAP</p> <p>STAEALTGYCTVMECPSTQDPMENKLLDMHAKNANLVHRQWFLDPLP.WPAGADTYEDWNNKERNMTRVPHAKRQVTVV.GSGEGAMHITALTGATEIQSGTSIFAGHLKCLRMKDLKLGMSYAMCTLTVLKKVESETQHTLVQVYKTEGTDAPCKIP</p> <p>COUPTEMDLKRNLGR.LTVNPTVTEQSPVNEADPPGDEIVYGAERALKSWKXSSGKMEATARGARRMAL.GDTAWDFSGVGGVYVLSLGR.MYHQIFGYSATLAFSGVSWMKGIGVLLVWGLNKNMTSMSCSAGIHTLVGVVQVHMLTSDRGEPR</p>

CD4 DENV-1 Epitopes

Epitope_ID	AA_Sequence	Protein_Name	Start	End	Allele	Step	Serotype	Method/Technique	Assay Group	Qualitative Measure	DENV-1 constructs of vaccines (100% identity=1, green; else 0, red)					
											T003	T0EN	DPIV	Dengvaxia	DENVax	TV/DV
195246	EISNMLNRRKRT	C	87	101	HLA-DRB1*13:01	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195560	KEVSNNMLNRRKRT	C	86	100	HLA-DRB1*13:01	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195884	RGFKFENSLMISIN	C	82	96	HLA-DRB1*04:01	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
196188	VSVLFMLFLTAFLAH	C	102	116	HLA-DRB1*01:01	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539048	AFMAFLRFLAIPPTA	C	27	41	HLA-DRB1*15:02	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539681	MLNRRKRRSVTILM	C	91	105	HLA-DRB1*13:01	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539816	QPSFMMLKRRNRVS	C	10	24	HLA-DRB1*08:03	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195359	IGLFTSVGLIHLQVF	E	706	720	HLA-DRB1*11:01	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195404	IGSLFTSVGLIHLQVF	E	705	719	HLA-DRB1*07:01	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539840	REDLVTKFTAHAKK	E	513	527	HLA-DRB1*04:03	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539854	RKDLVTKFTAHAKK	E	513	527	HLA-DRB1*04:03	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
867045	HAKQEVAVVLSQEG	E	244	258	HLA-DQA1*03:01/DOB1*03:02	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
869085	SVYVAGKQKALKLS	E	376	390	HLA-DRB5*01:01	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
869690	WLIAHQWFLDLPLPW	E	206	220	HLA-DQA1*01:01/DOB1*05:01	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195684	LNHLLENDIKFTVV	NS1	850	864	HLA-DRB1*03:01	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195690	LNVLLENDIMKFTVV	NS1	850	864	HLA-DRB1*03:01	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
591686	KFTVVVGDVSGILAQ	NS1	860	874	HLA-DRB1*03:01	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	1	1	1	1	0	0
868492	QISNELNVLENDIM	NS1	845	859	HLA-DPB1*01:01	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
868630	QYKQADSPVKKLSAA	NS1	806	820	HLA-DRB3*02:02	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195196	AWKTMAMALSIVSLF	NS2a	1291	1305	HLA-DRB1*08:02	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195285	FAVGLFRRTLSREI	NS2a	1214	1228	HLA-DRB1*11:01	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195323	FOSHQWATLLSLTF	NS2a	1267	1281	HLA-DPB1*04:02	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
195389	GLLFRKTSREVLIL	NS2a	1217	1231	HLA-DRB1*11:01	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195390	GLLFRKTSREVLIL	NS2a	1217	1231	HLA-DRB1*07:01	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195392	GLLFRKTSREVLIL	NS2a	1217	1231	HLA-DRB1*10:01	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195422	GLTAVLLIMQGLT	NS2a	1162	1176	HLA-DRB1*01:01	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195423	GLTAVLLIMQGLT	NS2a	1162	1176	HLA-DRB1*15:01	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195613	LAFLVLLIMQGLTWN	NS2a	1164	1178	HLA-DRB1*15:06	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195614	LAFLVLLIMQGLTWN	NS2a	1214	1228	HLA-DRB1*11:01	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195670	LLSTFTKFTSLHYA	NS2a	1276	1290	HLA-DRB1*07:01	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	1	0	0
195713	LSLFTKFTSLHYA	NS2a	1277	1291	HLA-DRB1*03:01	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195756	MLGLFRRLTSREVL	NS2a	1216	1230	HLA-DRB1*11:01	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195881	REVLLTVGLSLVAC	NS2a	1226	1240	HLA-DRB1*07:01	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195959	SLIEVMSRWRSRK	NS2a	1143	1157	HLA-DRB1*11:04	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539624	LSLFTKFTSLHYA	NS2a	1277	1291	HLA-DRB1*14:04	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539625	LSLFTKFTSLHYA	NS2a	1277	1291	HLA-DRB1*14:04	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539626	LSLFTKFTSLHYA	NS2a	1275	1289	HLA-DRB1*14:04	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539651	LVPFLLIMQGLTWS	NS2a	1164	1178	HLA-DRB1*15:06	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539657	MLSLVATLLSLTF	NS2a	1297	1311	HLA-DRB1*15:06	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539679	MLMTGTLAVFLLIM	NS2a	1158	1172	HLA-DRB1*15:06	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539680	MLMTGTLAVFLLIM	NS2a	1158	1172	HLA-DRB1*15:06	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539912	SLDYAWKTMAMALSI	NS2a	1287	1301	HLA-DRB1*09:01	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539918	SLTFTKFTSLHHAW	NS2a	1278	1292	HLA-DRB1*14:04	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539974	TGTLVFLLLTIGQL	NS2a	1161	1175	HLA-DRB1*15:06	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
540006	TTLTSLTFTSLSL	NS2a	1274	1288	HLA-DRB1*12:02	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
591779	TLAVFLLLIMQGLTW	NS2a	36	50	HLA-DRB1*11:01	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	1	1	1	1	0	0
739424	LAFLVLLIMQGLTWN	NS2a	1164	1178	HLA-DRB1*11:04	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
739578	LSLFTKFTSLHHAA	NS2a	1277	1291	HLA-DRB1*04:07	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
866118	AMALSVSLFCLLS	NS2a	1296	1310	HLA-DPB1*04:01	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
866767	FQSYQLWATLLSLTF	NS2a	1267	1281	HLA-DPB1*04:02	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
866873	GILAFVLLIMQGLT	NS2a	1162	1176	HLA-DPB1*04:02	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
867997	TSREILLTVGLSL	NS2a	1223	1237	HLA-DPB1*04:02	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
868513	OPHQLWATLLSLTF	NS2a	1268	1282	HLA-DPB1*04:02	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
869103	TDOPHQLWATLLSL	NS2a	1267	1279	HLA-DPB1*04:02	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
866200	ATLFLVTFWQKKCOR	NS2b	1461	1475	HLA-DPB1*01:01	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
24915	HTGKEVDLMCHATE	NS3	251	265	HLA-DPw2	0%	Dengue virus 1	ICS	IFNg release	Positive	0	0	0	0	0	0
539839	REARRKRLTILAP	NS3	1685	1699	HLA-DRB1*14:04	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539993	TNCLRRKNGKRWQLS	NS3	1848	1862	HLA-DRB1*13:01	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
540071	VREAIKKRLTILUA	NS3	1684	1698	HLA-DRB1*12:02	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
540075	VREAIKKRLTILUA	NS3	1684	1698	HLA-DRB1*12:02	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	1	1	1	1	0	0
54391	RKLTIMKLPGSGKIT	NS3	1662	1676	HLA class II	0%	Dengue virus 1	ICS	IFNg release	Positive	0	0	0	0	0	0
738417	AAAFMTATPPGSAE	NS3	1785	1799	HLA-DRB1*04:07	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
738418	AAAFMTATPPGSAE	NS3	1785	1799	HLA-DRB1*04:07	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195596	KTSIGLLCVTASSAL	NS4a	2174	2188	HLA-DRB1*07:01	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195680	LMLLALVATLGGVY	NS4a	2149	2163	HLA-DRB1*01:01	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
196046	TIETMLLAIAIAALT	NS4a	2145	2159	HLA-DRB1*01:01	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
739083	GVLVFLSNGIGLGT	NS4a	2161	2175	HLA-DRB1*01:02	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
195308	FLMLVAHYAIGRGLQ	NS4b	2357	2371	HLA-DRB1*07:01	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
868336	PLTLTAALVLAHAHY	NS4b	2349	2363	HLA-DQA1*01:02/DOB1*06:02	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195781	NEDHVSRSNGSLSGV	NS5	2985	2999	HLA-DRB1*04:01	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539509	KSEFNIVRSKGIMEV	NS5	2515	2529	HLA-DRB1*15:02	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539537	LAKAIFLTYQNKVV	NS5	3056	3070	HLA-DRB1*14:04	0%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195368	GIIFILLMLVTPSMA	PreM	266	280	HLA-DRB1*01:01	100%	Dengue virus 1	ELISPOT	IFNg release	Positive	1	1	1	0	1	1
195562	GIIFILLMLVTPSMA	PreM	265	279	HLA-DRB1*08:02	100%	Dengue virus 1	ELISPOT	IFNg release	Positive	1	1	1	0	1	1
195477	IELLTCTVTPAVLR	E	38	52	HLA-DRB1*04:01	100%	Dengue virus 1	ELISPOT	IFNg release	Positive	1	1	1	1	1	1
540052	VLSGQEGAMHTALGA	E	247	262	HLA class II	100%	Dengue virus 1	ICS	IFNg release	Positive	1	1	1	1	1	1
540104	VVLGQEGAMHTALGT	E	245	261	HLA class II	100%	Dengue virus 1	ICS	IFNg release	Positive	1	1	1	1	1	1
591514	SSIGKMFATARG	E	396	408	HLA-DQB	100%	Dengue virus 1	ELISPOT	IFNg release	Positive	1	1	1	0	1	1
866284	DDQRAWNIWEVDYG	NS1	181	195	HLA-DQA1*01:01/DOB1*05:01	100%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
867041	HADMGWIEVERKNT	NS1	231	245	HLA-DQA1*01:01/DOB1*05:01	100%	Dengue virus 1	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
868574	QRAWNIWEVDYRG	NS1	183	197	HLA-DQA1*01:01/DOB1*05:01	100%	Dengue virus 1	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
195963	RLMLVAHYAIGRGLQ	NS2a	1325	1339	HLA-DRB1*15:01	100%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539888	RNSRKMMLTIGTLAFV	NS2a	1153	1167	HLA-DRB1*04:03	100%										

539495	KNGAKVLRFGKKEI	C	52	66	HLA-DRB1*12:02	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	1	1	1	0	0	0
539613	LRLFAIPTAGILAR	C	32	46	HLA-DRB1*04:03	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	1	1	1	0	0	0
539711	NGAKVLRFGKKEIS	C	53	67	HLA-DRB1*13:01	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	1	1	1	0	0	0
539785	PSFNMLKRRNRVST	C	11	25	HLA-DRB1*10:01	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	1	1	1	0	0	0
738927	LRFLAIPPTAGILA	C	41	55	HLA-DRB1*14:02	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	1	1	1	0	0	0
195887	RKSKLLFKTSAGVNM	PrEm	111	125	HLA-DRB1*07:01	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	1	1	1	0	1	1
539510	KSLVLRFGKKEIMCT	PrEm	121	137	HLA-DRB1*10:03	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	1	1	1	1	1	1
867912	LHRPGFTVTLALAH	PrEm	242	256	HLA-DPB1*02:01	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	1	1	1	0	0	0
195345	AKFKCVTLLEGKIVQ	E	117	131	HLA-DRB1*11:01	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	1	1	1	1	1	1
195216	DIELLKTETVNPAL	E	37	51	HLA-DRB1*04:01	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	1	1	1	1	1	1
195260	ENLKYSVTVVTHDGT	E	128	142	HLA-DRB1*07:01	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	1	1	1	1	1	1
195362	GGVTSVTVLQHQVF	E	426	440	HLA-DRB1*11:01	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	0	0	0	0	0	0
195547	IVQYENKYSVTVT	E	124	138	HLA-DRB1*15:02	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	1	1	1	1	1	1
195623	DIELLKTETVNPAP	E	36	50	HLA-DRB1*04:01	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	1	1	1	1	1	1
195646	LITANPVTIDKQPV	E	346	360	HLA-DRB1*03:01	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	1	1	1	0	1	1
195814	NRQDILVFTAKAHK	E	227	241	HLA-DRB1*04:01	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	1	1	1	1	1	1
195874	QYENLKYSVTVVTH	E	126	140	HLA-DRB1*07:01	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	1	1	1	1	1	1
196053	TDIELLKTETVNP	E	35	49	HLA-DRB1*04:01	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	1	1	1	1	1	1
539169	DLTLVFTAKHAKQGE	E	230	244	HLA-DRB1*14:04	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	1	1	1	1	1	1
539378	HAKQEVTVLQSGEGAMH	E	239	253	HLA class II	81% <100%	Denguevirus 1	ICS	IFNg release	Positive	1	1	1	1	1	1
539593	LLVTFTAKHAKQEV	E	236	250	HLA-DRB1*14:02	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	1	1	1	1	1	1
539800	RLVLRFGKKEIMAKQ	E	229	243	HLA-DRB1*10:01	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	1	1	1	1	1	1
539869	RQDLVTFTAKHAK	E	228	242	HLA-DRB1*08:03	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	1	1	1	1	1	1
741745	MRCVYIGNRDFVEGLSGATW	E	281	300	HLA class II	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	1	1	1	1	1	1
868013	LWHQWFLDPLPLWT	E	487	501	HLA-DQA1*01:01/DQB1*05:01	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	1	1	1	1	1	1
869691	VLWHQWFLDPLPLPW	E	486	500	HLA-DQA1*01:01/DQB1*05:01	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	1	1	1	1	1	1
132583	QYKQFQADSPKRLSA	NS1	31	45	HLA-DRB1*03:01	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	1	1	1	0	0	0
195579	KNETWKLARASHIEV	NS1	206	220	HLA-DRB1*07:01	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	1	1	1	0	0	0
195685	LNHLLNDMMKFTVH	NS1	75	89	HLA-DRB1*03:01	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	1	1	1	0	0	0
195784	NETWKLARASHIEV	NS1	207	221	HLA-DRB1*07:01	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	1	1	1	0	0	0
539401	ISEKENTWKLARASFI	NS1	202	218	HLA class II	81% <100%	Denguevirus 1	ICS	IFNg release	Positive	1	1	1	0	0	0
869135	TEQYKQADSPKRLS	NS1	65	79	HLA-DRB5*01:01	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	1	1	1	0	0	0
195286	FAVGLFRRLTSREV	NS2a	1214	1228	HLA-DRB1*08:03	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	1	1	1	0	0	0
195391	GLLFRRLTSREVL	NS2a	1217	1231	HLA-DRB1*08:03	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	1	1	1	0	0	0
195665	LLTIGLSLVASVEL	NS2a	1229	1243	HLA-DRB1*07:01	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	0	0	0	0	0	0
195674	LLTIGLSLVASVEL	NS2a	1230	1244	HLA-DRB1*07:01	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	0	0	0	0	0	0
195708	LSLDRB1*01:01	NS2a	1229	1243	HLA-DRB1*01:01	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	1	1	1	0	0	0
539094	ATFKMPMPFAVGLF	NS2a	1206	1220	HLA-DRB1*01:02	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	0	0	0	0	0	0
539205	IEVMRSRWSRKMLMT	NS2a	1147	1161	HLA-DRB1*13:01	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	1	1	1	0	0	0
539398	IEVMRSRWSRKMLMT	NS2a	1146	1160	HLA-DRB1*13:01	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	1	1	1	0	0	0
540038	VGLFRRLTSREVL	NS2a	1216	1230	HLA-DRB1*08:03	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	1	1	1	0	0	0
540155	YLALMATFKMPMPFA	NS2a	1201	1215	HLA-DRB1*13:01	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	0	0	0	0	0	0
738553	AVGLFRRLTSREV	NS2a	1215	1229	HLA-DRB1*01:02	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	1	1	1	0	0	0
868098	MGMGTLYALMATFK	NS2a	456	470	HLA-DRB5*01:01	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	0	0	0	0	0	0
868100	MGQLTWNDLRLCIM	NS2a	433	447	HLA-DPB1*04:02	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	1	1	1	0	0	0
195191	AVGISVLLSLKCN	NS2b	1355	1369	HLA-DRB1*08:02	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	1	1	1	1	0	0
195228	DTLTKLTKALLVAS	NS2b	1438	1452	HLA-DRB1*08:02	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	0	0	0	0	0	0
195508	ILVEVQDGMTRKID	NS2b	68	82	HLA-DRB1*03:01	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	1	1	1	0	0	0
195510	IMAVGISVLLSL	NS2b	1353	1367	HLA-DRB1*07:01	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	1	1	1	1	0	0
195715	LSLKNLNDVPLAGFL	NS2b	1363	1377	HLA-DRB1*03:01	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	1	1	1	1	0	0
195724	LTLLKATLILKSGV	NS2b	1440	1454	HLA-DRB1*08:02	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	0	0	0	0	0	0
195878	RODILTLLKATLLA	NS2b	1436	1450	HLA-DRB1*12:02	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	1	1	1	0	0	0
195993	SSLKNDDVPLAGFL	NS2b	1364	1378	HLA-DRB1*03:01	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	1	1	1	1	0	0
196111	VEVQDGMTRKID	NS2b	1421	1435	HLA-DRB1*03:01	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	1	1	1	0	0	0
866201	ATLEWVFWYQMKDDE	NS2b	1461	1475	HLA-DPB1*01:01	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	1	1	1	0	0	0
867359	IVSLLSLKNDDVP	NS2b	1358	1372	HLA-DPB1*04:02	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	1	1	1	1	0	0
867544	LAGPLIAGMGACIAC	NS2b	1373	1387	HLA-DQA1*01:02/DQB1*06:02	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	1	1	1	1	0	0
167826	TSGYVISAIAQKASGE	NS3	157	173	HLA class II	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	1	1	1	0	0	0
195143	AIVREAKRLRLTL	NS3	1682	1696	HLA-DRB1*11:01	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	0	0	0	0	0	0
195163	ANCLRRKNGKRVQLS	NS3	1849	1863	HLA-DRB1*13:01	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	0	0	0	0	0	0
195165	ANFRADRVIRPRCL	NS3	1891	1905	HLA-DRB1*03:01	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	1	1	1	0	0	0
195201	CHATTVMRLSPVVR	NS3	1737	1751	HLA-DRB1*01:01	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	1	1	1	0	0	0
195242	EGKVLGVNGVVT	NS3	1618	1632	HLA-DRB1*15:01	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	1	1	1	0	0	0
195296	HTHMWHVIRGAVLMY	NS3	1521	1535	HLA-DRB1*07:01	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	1	1	1	0	0	0
195337	GYRLDGLGRSGV	NS3	1496	1510	HLA-DRB1*11:01	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	1	1	1	0	0	0
195349	GNKVLGVNGVVT	NS3	1499	1513	HLA-DRB1*15:01	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	1	1	1	0	0	0
195549	IVYLRQGLGRSGV	NS3	1494	1511	HLA-DRB1*15:01	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	1	1	1	0	0	0
195585	RKRLTLAPTRVR	NS3	1689	1703	HLA-DRB1*10:01	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	0	0	0	0	0	0
195705	RLTLAPTRVASEM	NS3	1692	1706	HLA-DRB1*08:02	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	0	0	0	0	0	0
195777	NCLRKNGKRVQLSR	NS3	1849	1863	HLA-DRB1*11:01	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	0	0	0	0	0	0
195778	NDIANCLRKNGKRV	NS3	1845	1859	HLA-DRB1*11:01	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	0	0	0	0	0	0
195896	RKRLTLAPTRVRA	NS3	1690	1704	HLA-DRB1*01:01	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	0	0	0	0	0	0
195914	RLTLAPTRVASEM	NS3	1693	1707	HLA-DRB1*10:01	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	0	0	0	0	0	0
196138	VLDGGVYRILQGLL	NS3	1492	1506	HLA-DRB1*11:01	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	1	1	1	0	0	0
196197	VTGVAVLVYQGRKLE	NS3	1527	1541	HLA-DRB1*15:01	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	1	1	1	0	0	0
30397	KEGKRRKLPRWLD	NS3	585	599	HLA class II	81% <100%	Denguevirus 1	ICS	IFNg release	Positive	1	1	1	0	0	0
45669	NREGKVLGVNGVV	NS3	141	155	HLA-DRB1*15:01	81% <100%	Denguevirus 1	ICS	IFNg release	Positive	1	1	1	0	0	0
49768	PTRVASEMAEALGK	NS3	224	238	HLA-DRB1*15:01	81% <100%	Denguevirus 1	ICS	IFNg release	Positive	1	1	1	0	0	0
539022	AAAFITPATPGSSVE	NS3	1785	1799	HLA-DRB1*04:03	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	1	1	1	0	0	0
539072	AAAFITPATPGSSVE	NS3	1786	1800	HLA-DRB1*10:01	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	1	1	1	0	0	0
539155	DGVRILQGLGRS	NS3	1495	1509	HLA-DRB1*12:02	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	1	1	1	0	0	0
539171	DLMCHATTMBRLSP	NS3	1734	1748	HLA-DRB1*13:01	81% <100%	Denguevirus 1	ELSPOT	IFNg release	Positive	1	1	1	0		

868296	PEHALLATSIFKLT	N55	3051	3065	HLA-DPB1*02:01	81% - <100%	Denguevirus 1	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
868641	RLEFEAFGLFMEDH	N55	2974	2988	HLA-DPB1*04:01	81% - <100%	Denguevirus 1	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
195540	ISSMLNIMNRRKRSV	C	76	90	HLA-DRB1*14:02	51%-80%	Denguevirus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195885	RGFKKESSMLNIMN	C	60	74	HLA-DRB1*04:01	51%-80%	Denguevirus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539258	FKKEISSMLNIMNRR	C	62	76	HLA-DRB1*10:01	51%-80%	Denguevirus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539459	KEISSMLNIMNRRKR	C	64	78	HLA-DRB1*14:04	51%-80%	Denguevirus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539475	KGEISSMLNIMNRRK	C	63	77	HLA-DRB1*14:04	51%-80%	Denguevirus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539617	LRGFKKEISSMLNIM	C	59	73	HLA-DRB1*13:01	51%-80%	Denguevirus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
540059	VLRFKKEISSMLNIM	C	68	82	HLA-DRB1*04:07	51%-80%	Denguevirus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195831	PGFTVIALFLAHAGI	PreM	245	259	HLA-DRB1*15:01	51%-80%	Denguevirus 1	ELISPOT	IFNg release	Positive	1	1	1	0	1	1
196085	TVIALFLAHAGITS	PreM	248	262	HLA-DRB1*07:01	51%-80%	Denguevirus 1	ELISPOT	IFNg release	Positive	1	1	1	0	1	1
867083	HPGFTVIALFLAHAI	PreM	244	258	HLA-DPB1*02:01	51%-80%	Denguevirus 1	ELISPOT	IFNg release	Positive	1	1	1	0	1	1
539679	GVSWTVMKIGILLIT	E	445	459	HLA-DRB1*15:02	51%-80%	Denguevirus 1	ELISPOT	IFNg release	Positive	1	1	1	0	1	1
539670	MKIGILLITWGLGN	E	450	464	HLA-DRB1*15:06	51%-80%	Denguevirus 1	ELISPOT	IFNg release	Positive	1	1	1	0	1	1
867101	HTALTGATEIQTSGT	E	541	555	HLA-DQA1*01:02/DQB1*06:02	51%-80%	Denguevirus 1	ELISPOT	IFNg release	Positive	1	1	1	1	1	1
195162	AMVLSIVSLFPLCLS	N52a	1296	1310	HLA-DRB1*15:01	51%-80%	Denguevirus 1	ELISPOT	IFNg release	Positive	0	0	0	1	0	0
195595	KTMAMVLSIVSLFPL	N52a	1293	1307	HLA-DRB1*03:01	51%-80%	Denguevirus 1	ELISPOT	IFNg release	Positive	0	0	0	1	0	0
195745	MAMVLSIVSLFPLCL	N52a	1295	1309	HLA-DRB1*07:01	51%-80%	Denguevirus 1	ELISPOT	IFNg release	Positive	0	0	0	1	0	0
196216	WKTAMAMVLSIVSLF	N52a	1292	1306	HLA-DRB1*08:02	51%-80%	Denguevirus 1	ELISPOT	IFNg release	Positive	0	0	0	1	0	0
1392180	GREVDLMCHATFTM	N53	1730	1744	HLA-DRB1*03:01	51%-80%	Denguevirus 1	biological activity	activation	Positive	1	1	1	0	0	0
869696	WNTGEEVQVIAVEFG	N53	1564	1578	HLA-DQA1*03:01/DQB1*03:02	51%-80%	Denguevirus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539383	HLTLBAQNLNLNLM	N54a	2110	2124	HLA-DRB1*02:02	51%-80%	Denguevirus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195186	ATNQVAIQNRRLI	N55	3352	3366	HLA-DRB1*03:01	51%-80%	Denguevirus 1	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
195385	GLHLKGYLRDISKI	N55	3003	3017	HLA-DRB1*08:02	51%-80%	Denguevirus 1	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
195783	NENYDVTMSMKRFK	N55	3368	3382	HLA-DRB1*11:01	51%-80%	Denguevirus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195824	NKYDVTMSMKRFKNE	N55	3370	3384	HLA-DRB1*14:02	51%-80%	Denguevirus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539350	GTAKRWFWERNLYK	N55	2551	2565	HLA-DRB1*09:01	51%-80%	Denguevirus 1	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
539691	MTRSMLNIRNFTMAHR	N55	17	31	HLA-DRB1*14:06	51%-80%	Denguevirus 1	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
738814	ENLYDVTMSMKRFKN	N55	3369	3383	HLA-DRB1*14:02	51%-80%	Denguevirus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
740786	LYDVTMSMKRFKNES	N55	3371	3385	HLA-DRB1*14:02	51%-80%	Denguevirus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
866481	EAVEDERFWDLVHRE	N55	2916	2930	HLA-DQA1*01:01/DQB1*05:01	51%-80%	Denguevirus 1	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
869091	TAKLRWFWERNLVKP	N55	2552	2566	HLA-DQA1*01:01/DQB1*05:01	51%-80%	Denguevirus 1	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
1067569	LARWGSFKKGAIKVV	C	66	80	HLA-DRB1*07:01	>0% -50%	Denguevirus 1	ELISPOT	IFNg release	Positive-Low	1	1	1	0	0	0
195315	FMMLKARRNRVSTVS	C	13	27	HLA-DRB1*08:02	>0% -50%	Denguevirus 1	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
195498	IKVLGRFKKEISSML	C	78	92	HLA-DRB1*04:01	>0% -50%	Denguevirus 1	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
195535	ISMLNIMNRRKRSV	C	88	102	HLA-DRB1*08:02	>0% -50%	Denguevirus 1	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
195557	KEISSMLNIMNRRKR	C	86	100	HLA-DRB1*13:01	>0% -50%	Denguevirus 1	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
195805	NMLNIMNRRKRSVTM	C	90	104	HLA-DRB1*11:01	>0% -50%	Denguevirus 1	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
195883	RGFKKEISSMLNIMN	C	82	96	HLA-DRB1*04:01	>0% -50%	Denguevirus 1	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
196146	VLRFKKEISSMLNIM	C	80	94	HLA-DRB1*04:01	>0% -50%	Denguevirus 1	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
196195	VTMLFMFLPTALFAH	C	102	116	HLA-DRB1*04:01	>0% -50%	Denguevirus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
39096	LRGFKKEISSMLN	C	81	95	HLA-DPw4	>0% -50%	Denguevirus 1	ICS	TNF release	Positive	1	1	1	0	0	0
539257	FKKEISSMLNIMNRR	C	84	98	HLA-DRB1*04:03	>0% -50%	Denguevirus 1	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
539278	GAIKVLGRFKKEISS	C	76	90	HLA-DRB1*12:02	>0% -50%	Denguevirus 1	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
539616	LRGFKKEISSMLNIM	C	81	95	HLA-DRB1*10:01	>0% -50%	Denguevirus 1	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
539780	PMKLVMAFAIRLFL	C	21	35	HLA-DRB1*13:01	>0% -50%	Denguevirus 1	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
539866	RPSFNLKRVNRNRS	C	10	24	HLA-DRB1*08:03	>0% -50%	Denguevirus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
540117	WGSFKKGAIKVLGR	C	47	61	HLA-DRB1*09:01	>0% -50%	Denguevirus 1	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
740331	SMMLNIMNRRKRSVT	C	89	103	HLA-DRB1*14:02	>0% -50%	Denguevirus 1	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
867523	KVLGRFKKEISSMLN	C	79	93	HLA-DRB1*02:02	>0% -50%	Denguevirus 1	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
95107	KLVMAFAIRLFL	C	45	57	HLA-DPw4	>0% -50%	Denguevirus 1	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
195589	KSLLTKTSVNMCTM	PreM	135	149	HLA-DRB1*07:01	>0% -50%	Denguevirus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
869062	SVGNMKTCLIAMDLG	PreM	142	156	HLA-DQA1*01:02/DQB1*06:02	>0% -50%	Denguevirus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195361	GGVTSVGVKLWHOIF	E	426	440	HLA-DRB1*11:01	>0% -50%	Denguevirus 1	ELISPOT	IFNg release	Positive	0	0	0	1	0	0
867378	KCRLLMKDKLTILKGM	E	564	578	HLA-DRB3*02:02	>0% -50%	Denguevirus 1	ELISPOT	IFNg release	Positive	0	0	0	1	1	0
195785	NETWKLTASRFASVE	N51	982	996	HLA-DRB1*07:01	>0% -50%	Denguevirus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
738503	ANGILQAGKMIRRPQ	N51	868	882	HLA-DRB1*14:06	>0% -50%	Denguevirus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
740562	TVVVGDAAGILQAQK	N51	862	876	HLA-DRB1*01:02	>0% -50%	Denguevirus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
866693	FGIFTINWILKDRS	N51	196	210	HLA-DPB1*04:01	>0% -50%	Denguevirus 1	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
867405	KIIGADIQNTFTIID	N51	897	911	HLA-DPB1*04:02	>0% -50%	Denguevirus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
869721	YGGFIFTINWILKLR	N51	194	208	HLA-DPB1*02:01	>0% -50%	Denguevirus 1	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
167816	SLVASVLPNSLELGGDLAMGIMI	N52a	109	133	HLA class II	>0% -50%	Denguevirus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539086	AMGIMILKLTDFGS	N52a	1255	1269	HLA-DRB1*04:03	>0% -50%	Denguevirus 1	ELISPOT	IFNg release	Positive	0	0	0	1	0	0
539272	FSHYAWKTMAMVLS	N52a	1286	1300	HLA-DRB1*09:01	>0% -50%	Denguevirus 1	ELISPOT	IFNg release	Positive	0	0	0	1	0	0
539517	KTFSHYAWKTMAMM	N52a	1283	1297	HLA-DRB1*09:01	>0% -50%	Denguevirus 1	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
539913	SLHYAWKTMAMVLSI	N52a	1287	1301	HLA-DRB1*09:01	>0% -50%	Denguevirus 1	ELISPOT	IFNg release	Positive	0	0	0	1	0	0
539970	FTSLHYAWKTMAMVLS	N52a	1285	1299	HLA-DRB1*14:06	>0% -50%	Denguevirus 1	ELISPOT	IFNg release	Positive	0	0	0	1	0	0
738679	DURLCIMVGNANSD	N52a	1179	1193	HLA-DRB1*11:04	>0% -50%	Denguevirus 1	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
739508	LLCISIMEEVMSRS	N52a	1139	1153	HLA-DRB1*11:04	>0% -50%	Denguevirus 1	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
867232	ILKLLTDFQSHQWLWA	N52a	1260	1274	HLA-DPB1*01:01	>0% -50%	Denguevirus 1	ELISPOT	IFNg release	Positive	0	0	0	1	0	0
195622	LDGQYIRIMQRGLLG	N53	1493	1507	HLA-DRB1*11:01	>0% -50%	Denguevirus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539156	GVYIRIMQRGLLGRS	N53	1495	1509	HLA-DRB1*12:02	>0% -50%	Denguevirus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539309	GVYIRIMQRGLLGRSQ	N53	1496	1510	HLA-DRB1*14:04	>0% -50%	Denguevirus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
866721	FKTPFGEVGAIALDF	N53	1591	1605	HLA-DQA1*03:01/DQB1*03:02	>0% -50%	Denguevirus 1	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
867025	GVQFQENFHTMWHVHT	N53	1514	1528	HLA-DPB1*04:01	>0% -50%	Denguevirus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195485	IGLLCMVASSALLWM	N54a	2177	2191	HLA-DRB1*07:01	>0% -50%	Denguevirus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
867567	LCVMASSALLWMANV	N54a	2180	2194	HLA-DQA1*01:02/DQB1*06:02	>0% -50%	Denguevirus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195441	HATMDVLCRPPASAW	N54b	2269	2283	HLA-DRB1*03:01	>0% -50%	Denguevirus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195455	HHHATMDVLCRPPAS	N54b	2267	2281	HLA-DRB1*03:01	>0% -50%	Denguevirus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195561	KPWATTIASMANIF	N54b	2456	2470	HLA-DRB1*07:01	>0% -50%	Denguevirus 1	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
738686	DLRPPASAWTLVAVAT	N54b	2276	2290	HLA-DRB1*01:02	>0% -50%	Denguevirus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
740732	WTLVAVATTITPMM	N54b	2283	2297	HLA-DRB1*04:07	>0% -50%	Denguevirus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195147	AKNGTVMDVMSRRDQ	N55	3076	3090	HLA-DRB1*03:01	>0% -50%	Denguevirus 1	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
195582	KPIDDRFATALTALN	N55</														

CD4 DENV-2 Epitopes

Epitope_ID	AA_Seq	Protein_Name	Start	End	Allele	Step	Serotype	Method/Technique	Assay Group	Qualitative Measure	DENV-2 constructs of vaccines (100% identity=1, green ; else 0, red)					
											TV003	TDEN	DPV1	Dengvaxia	DENVax	TV0V
150404	LRLFMALVFLRLT	C	44	58	HLA-DRB1*11:01	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195121	AGMILMPTVFAFH	C	102	116	HLA-DRB1*08:02	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195369	GILMIPTVMMAFL	C	103	117	HLA-DRB1*08:02	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195413	GPRLRFMALVAFRL	C	42	56	HLA-DRB1*04:01	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195432	GVLMIPTVMMAFHL	C	103	117	HLA-DRB1*08:02	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195490	IGRMLNLRSSRRRTA	C	88	102	HLA-DRB1*11:01	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195654	LKLYMALVAFRLT	C	44	58	HLA-DRB1*15:01	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195910	RTAGVIMMPTVFA	C	100	114	HLA-DRB1*08:02	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195911	RTASVIMMPTVMA	C	100	114	HLA-DRB1*08:02	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
196024	TAGVIMMPTVMAF	C	101	115	HLA-DRB1*08:02	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
196084	TVGVIMMPTVMAF	C	101	115	HLA-DRB1*08:02	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
53867	RGFRKEIGRMLNLRSS	C	17	35	HLA class II	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539046	AFRLFTIPPVTGIL	C	52	66	HLA-DRB1*10:01	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539051	AFVAFRLFTIPTTA	C	9	23	HLA-DRB1*15:02	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539213	EIGRMLNLRNRRRT	C	87	101	HLA-DRB1*13:01	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539343	GRMLNIMNRRRTTAG	C	89	103	HLA-DRB1*13:01	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539549	LFTALVAFRLFTIP	C	46	60	HLA-DRB1*15:06	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
62853	TAGILKRWGTTKSKANVL	C	62	81	HLA class II	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
739176	IGRMLNLRNRRRTA	C	88	102	HLA-DRB1*14:02	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
739177	IGRMLNLRNRRRSA	C	88	102	HLA-DRB1*14:02	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	0	0	1	0
739179	IGRMLNLRNRRRSV	C	88	102	HLA-DRB1*14:02	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
739180	IGRMLNLRNRRRTT	C	88	102	HLA-DRB1*14:02	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
739182	IGRMLNLRNRRRTA	C	88	102	HLA-DRB1*14:02	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
739183	IGRMLNLRNRRRTA	C	88	102	HLA-DRB1*14:02	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
740399	STFPMMLKERNRVS	C	10	24	HLA-DRB1*14:02	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
740579	VAFRLFSTIPTAGI	C	51	65	HLA-DRB1*04:07	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
866992	GPLKLYMALVAFRL	C	42	56	HLA-DRB5*01:01	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
867734	LKGFKEIGRMLNLR	C	81	95	HLA-DRB3*02:02	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
867910	LRGFRKEIGRMLNIM	C	81	95	HLA-DRB3*02:02	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
867911	LRGFRKEIGRMLNLR	C	81	95	HLA-DRB3*02:02	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
868674	LRFMALVAFRLTLT	C	45	59	HLA-DPB1*04:02	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
150280	HPFGFTLMAALAYTI	PreM	244	258	HLA-DRB1*01:01	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
180708	ORIETWILRHFGFTM	PreM	121	135	HLA class II	0%	Dengue virus 2	ELISPOT	IFNg release	Positive-Low	0	0	0	0	1	0
195318	FOKILFLITLAVAP	PreM	263	277	HLA-DRB1*07:01	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195320	FORTLFLITLAVAP	PreM	263	277	HLA-DRB1*07:01	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195448	HQRAFLITLATA	PreM	262	276	HLA-DRB1*07:01	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	1	1	1	0	1
195504	ILRHFGFTLMAALA	PreM	241	255	HLA-DRB1*15:01	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
196045	THSRALFLLTAV	PreM	261	275	HLA-DRB1*07:01	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	1	1	1	1	1
196232	YQFRLIFLLTAVT	PreM	262	276	HLA-DRB1*07:01	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
739425	LYATIGTTHFORALI	PreM	254	268	HLA-DRB1*04:07	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	1	1	1	1	1
866485	EDGVNMCITLMAIDLG	PreM	142	156	HLA-DQA1*01:01/DOB1*06:02	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
86650	RHPGFTLMAALAYTI	PreM	243	257	HLA-DQA1*01:02/DOB1*06:02	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195793	NLEYTIMTPHSGEE	E	134	148	HLA-DRB1*04:01	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195952	SGVSWTKMLIGVIL	E	449	463	HLA-DRB1*15:01	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	0	1	1	0
196022	SVWTKMLIGVITWI	E	452	466	HLA-DRB1*08:02	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	0	1	1	0
539427	IQKTLVTFKNPHAK	E	512	526	HLA-DRB1*04:03	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539462	KEMLVTFKNPHAKRQ	E	514	528	HLA-DRB1*04:03	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539479	KKTLVTFKNPHAKRQ	E	514	528	HLA-DRB1*14:04	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539629	LSVTLLVGVFTVLYL	E	475	489	HLA-DRB1*15:06	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
738866	EYTIMTPHSGEEHA	E	136	150	HLA-DRB1*04:07	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	0	1	0	1	1
867375	KAWLVHRRQFLDLPF	E	204	218	HLA-DQA1*01:01/DOB1*05:01	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
868347	PPFGFTLMAALAYTI	E	371	385	HLA-DQA1*03:01/DOB1*03:02	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195954	SHNDSVIGDEPTEA	NS1	903	917	HLA-DRB1*04:01	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	0	0	1	0
539708	NDTWKMEKASFEVKE	NS1	982	996	HLA-DRB1*09:01	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
739191	IKGIMHAGKSLRPQ	NS1	868	882	HLA-DRB1*14:02	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
866699	FGVFTTNWILKREK	NS1	935	949	HLA-DPB1*04:01	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	1	0	0	0
866829	GGFTFTTNWILKRE	NS1	934	948	HLA-DPB1*01:01	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
866831	GGVFTTNWILKRE	NS1	934	948	HLA-DPB1*04:01	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	1	0	0	0
869722	YGVFTTNWILKRL	NS1	933	947	HLA-DPB1*04:01	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	1	0	0	0
150245	GMGVITLALLAAVYK	NS2a	1196	1210	HLA-DRB1*01:01	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
167819	SSQKTDVITPLATIKGLNP	NS2a	184	203	HLA-DP	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	0	0	1	0
195269	ERYQLAVTITAIICV	NS2a	1268	1282	HLA-DRB1*07:01	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195523	IPVLVLIGLNPTAI	NS2a	1319	1333	HLA-DRB1*08:02	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195712	LSLTHIRSTPLIIMA	NS2a	1275	1289	HLA-DRB1*07:01	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195763	MMVLKIVRKMERQYL	NS2a	1258	1272	HLA-DRB1*03:01	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
196217	WVSCITLAAVSVSP	NS2a	1292	1306	HLA-DRB1*04:01	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539077	ALGIMLVKIVRSMEK	NS2a	1255	1269	HLA-DRB1*12:02	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539082	ALTKGLWYTAAILT	NS2a	1232	1246	HLA-DRB1*09:01	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539110	AWALGMVYLKIVRNM	NS2a	1253	1267	HLA-DRB1*13:01	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539392	ILGIMVLKIVRSME	NS2a	1254	1268	HLA-DRB1*13:01	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539556	ILGIMVLKIVRMEKY	NS2a	1256	1270	HLA-DRB1*12:02	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539557	LGIMVLKIVRSMEKY	NS2a	1256	1270	HLA-DRB1*12:02	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539706	NAWKVSCITLAAVSV	NS2a	1290	1304	HLA-DRB1*09:01	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539893	SCITLAAVSVSPILL	NS2a	1295	1309	HLA-DRB1*10:01	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195913	RTGLLVISGVFVSI	NS2b	1445	1459	HLA-DRB1*08:02	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539574	LIRTLGVISGVFPV	NS2b	1443	1457	HLA-DRB1*13:01	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
24916	HTGREIVDLCHATE	NS3	251	265	HLA-DPw2	0%	Dengue virus 2	ICS	IFNg release	Positive	0	0	0	0	0	0
539283	GAYRKIGRLIGVSG	NS3	1496	1510	HLA-DRB1*08:03	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
54390	RKTLMDLHPGAGTK	NS3	618	632	HLA class II	0%	Dengue virus 2	ICS	IFNg release	Positive	0	0	1	0	0	0
868183	MWHTVGAVALMHKRG	NS3	1524	1538	HLA-DRB3*02:02	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
150192	ELLTLTLAAVIGG	NS4a	2146	2160	HLA-DRB1*01:01	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195810	NLTWYMAILLTVA	NS4a	2225	2239	HLA-DRB1*07:01	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195118	AGLLFSMIRNTTSAR	NS4b	2476	2490	HLA-DRB1*04:01	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195270	ESSENLDDLRPAS	NS4b	2265	2279	HLA-DRB1*03:01	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0				

539689	MRGAKRMALIGTAW	E	406	420	HLA-DRB1*15:06	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	1	1	1	1	0
741744	MRCIGISNRDFFVGVSSGW	E	281	300	HLA class II	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	1	1	1	0	1
866193	ATEQMSSGNLLFTG	E	257	271	HLA-DRB3*02:02	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	1	1	1	1	1
150273	GVTYLLAALFAKVRP	NS2a	1198	1212	HLA-DRB1*01:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
540094	VTYLLAALFAKVRPT	NS2a	1199	1213	HLA-DRB1*12:02	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
150433	MANGMVSILASLLKE	NS2b	1354	1368	HLA-DRB1*01:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
150512	IMAKMVSILASLL	NS2b	8	22	HLA-DRB1*07:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
155992	SLLKNDIPMTGFLV	NS2b	19	33	HLA-DRB1*03:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
866986	GMVSISSALSKNDI	NS2b	1357	1371	HLA-DRB1*01:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
1067121	GKGVGLYGVNGSVVTRS	NS3	1619	1633	HLA-DRB1*15:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
12372	EHTGFEVLDLMCHAT	NS3	250	264	HLA class II	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
12606	EIVDLDMCHATTMRL	NS3	255	269	HLA class II	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
1392191	GREIVDLDMCHATTM	NS3	1728	1742	HLA class II	100%	Dengue virus 2	biological activity	activation	Positive	0	1	1	0	1	0
139758	GKTKRYLPALVREAI	NS3	1673	1687	HLA-DRB1*09:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
180698	PNNYLIMDEAHTFD	NS3	1751	1765	HLA class II	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
195295	FHTMMVHVRGAVLMH	NS3	1521	1535	HLA-DRB1*07:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
195420	GFTHTMMVHVRGAVL	NS3	1519	1533	HLA-DRB1*07:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
195888	RGLRTLAPTRVVA	NS3	1689	1703	HLA-DRB1*08:02	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
21115	GLRTLILAPTRVVA	NS3	1690	1704	HLA-DRB1*04:03	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
26965	ILAPTRVVAEMEEA	NS3	1695	1709	HLA-DQA1*03:01/DOB1*03:02	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
34231	KVVLGVGVNGVITRSR	NS3	145	159	HLA class II	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
36560	LIIMDEAHTFD	NS3	1755	1769	HLA-DQA1*01:01/DOB1*05:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
39215	RLTLAPTRVVAE	NS3	1691	1705	HLA-DRB1*12:02	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
49766	PTRVVAEMEEALRG	NS3	223	237	HLA-DRB1*15:01	100%	Dengue virus 2	ICS	IFNg release	Positive	0	1	1	0	1	0
539025	AAGIFTATPPGSRD	NS3	1784	1798	HLA-DRB1*04:03	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
539041	AEMEEALRGLPIRYQ	NS3	1704	1718	HLA-DRB1*13:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
539289	GEAAGIFTATPPGGS	NS3	1782	1796	HLA-DRB1*04:03	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
539448	IVREAIKRLTLIL	NS3	1682	1696	HLA-DRB1*12:02	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
539573	LILAPTRVVAEMEE	NS3	1694	1708	HLA-DRB1*13:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
540056	VLMMHKGRIEFSWAD	NS3	1518	1532	HLA-DRB1*13:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
63672	FTHTMVHVRGAVLM	NS3	45	59	HLA class II	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
64666	TKRYLPALVREAIK	NS3	200	214	HLA class II	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
740081	REAIKRLTLILAP	NS3	1670	1684	HLA-DRB1*14:06	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
740193	RTLILAPTRVVAEM	NS3	1678	1692	HLA-DRB1*14:06	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
866477	EALRGPIRYQITGAI	NS3	1708	1722	HLA-DRB1*11:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
866734	RYLPALVREAIK	NS3	1671	1685	HLA-DRB1*04:03	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
866724	TLTLAPTRVVAEME	NS3	1691	1705	HLA-DQA1*01:02/DOB1*06:02	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
150362	LETLLTLTLATVIG	NS4a	2145	2159	HLA-DRB1*01:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
195107	ASILEFEFIVLIL	NS4a	2185	2199	HLA-DRB1*15:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
195767	MTLGMCCITASILL	NS4a	2160	2174	HLA-DRB1*07:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
196054	LETLLTLTLATVIG	NS4a	2144	2158	HLA-DRB1*15:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
738567	AYNHALSEPETLET	NS4a	2119	2133	HLA-DRB1*04:07	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
195882	RFWNTITAVSMANIF	NS4b	2454	2468	HLA-DRB1*07:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
195974	SNLIDILRPASAWT	NS4b	2155	2169	HLA-DRB1*03:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
539724	NIIFRGSLAGALFL	NS4b	2452	2466	HLA-DRB1*09:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
739437	LDLILRPASAWTLVA	NS4b	2257	2271	HLA-DRB1*01:02	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
866802	FWNTITAVSMANIFR	NS4b	2455	2469	HLA-DQA1*01:02/DOB1*06:02	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
866989	TAIANGQATVLMGLK	NS4b	2309	2323	HLA-DQA1*01:02/DOB1*06:02	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
190862	MVTQMAMTITPFGQDR	NS5	2828	2844	HLA class II	100%	Dengue virus 2	ICS	IFNg release	Positive	0	1	1	0	1	0
195200	CEICVNMIMKGRREK	NS5	2924	2938	HLA-DRB1*11:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
196213	DELIGBARISGAGW	NS5	3223	3237	HLA-DRB1*08:02	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
196263	EDMHWFSRENSLSVE	NS5	2985	2999	HLA-DRB1*04:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
195409	GNIVSSNMISRMIL	NS5	2717	2731	HLA-DRB1*07:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
195948	SGNIVSSNMISRMIL	NS5	2716	2730	HLA-DRB1*04:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
196187	VSSVNMISRMILNRF	NS5	2720	2734	HLA-DRB1*15:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
196210	WAKNQITAINQVRS	NS5	3336	3350	HLA-DRB1*03:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	1	0	0	0
539436	ISGDDCVKPLDDRFA	NS5	3151	3166	HLA class II	100%	Dengue virus 2	ICS	IFNg release	Positive	0	1	1	0	1	0
539871	RRLDLRLAANAICSAV	NS5	3260	3274	HLA-DRB3*02:02	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
866172	ASGNIVSSNMISRM	NS5	2715	2729	HLA-DRB3*02:02	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
867600	LEFALGFLNEDHWF	NS5	2975	2989	HLA-DRB1*04:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
868037	RDLRLAANAICSAVP	NS5	3261	3275	HLA-DQA1*05:01/DOB1*02:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
868640	RLEFALGFLNEDH	NS5	2973	2987	HLA-DRB1*01:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
869426	VESWEIPEYVKRED	NS5	3321	3335	HLA-DQA1*01:01/DOB1*05:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
1066603	ARNPTFNMILKRENR	C	8	22	HLA-DRB1*11:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive-Low	0	1	1	0	0	0
150105	AFRLRFLTIPTAGIL	C	52	66	HLA-DRB1*01:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
150369	LKLFMALVAFRLRFL	C	44	58	HLA-DRB1*01:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
180597	LFMALVAFRLTIPT	C	66	80	HLA class II	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
180768	TIKSKAINVLRGPR	C	71	85	HLA class II	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
195307	FMALVAFRLTIPT	C	47	61	HLA-DRB1*11:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
195573	KLFMALVAFRLTLI	C	45	59	HLA-DRB1*15:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
195730	LVAFRLTIPTTPTAG	C	50	64	HLA-DRB1*04:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
195744	MALVAFRLTIPTTPT	C	48	62	HLA-DRB1*04:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
195889	RGLPKLFMALVAFRL	C	41	55	HLA-DRB1*04:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
196064	TPFNMILKRENRVST	C	11	25	HLA-DRB1*08:02	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
196093	VAFRLTIPTTPTAGI	C	51	65	HLA-DRB1*04:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
196213	WGTKSKAINVLRG	C	69	83	HLA-DRB1*07:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
26836	IKKSKAINVLRGFKIEGRM	C	72	91	HLA class II	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
539083	ALVAFRLTIPTTPTA	C	49	63	HLA-DRB1*12:02	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
539264	FLRFLTIPTTPTAGIL	C	53	67	HLA-DRB1*14:02	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
539410	IKKSKAINVLRGPR	C	72	86	HLA-DRB1*14:04	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
539514	KSKAINVLRGPR	C	74	88	HLA-DRB1*12:02	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
539612	LOGRGPLKLFMALVA	C	38	52	HLA-DRB1*15:02	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
539887	RWGTIKKSKAINVLR	C	68	82	HLA-DRB1*08:03	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
540069	VQDLTKRFLSGMLQG	C	26	40	HLA-DRB1*13:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
739879	PFNMILKRENRVST	C	12	26	HLA-DRB1*14:02	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0					

195752	MEKYQLAVTIMALC	NS2a	1154	1168	HLA-DRB1*04:07	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
195798	NNMEYQLAVTIMAIL	NS2a	1266	1280	HLA-DRB1*04:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	0	0	1	0
196174	VNMMEYQLAVTIMA	NS2a	1264	1278	HLA-DRB1*13:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	0	0	1	0
539474	KIVRMMEYQLAVTI	NS2a	1262	1276	HLA-DRB1*13:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539540	LALLAAFRVPTFAA	NS2a	1202	1216	HLA-DRB1*14:04	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
540154	YLALLAAFRVPTFA	NS2a	1201	1215	HLA-DRB1*14:04	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
865978	GMLVLEMLRVNGS	NS2a	1141	1155	HLA-DQA1*01:02/DOB1*05:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
867216	ILCPVNAVILQNAWK	NS2a	1279	1293	HLA-DQA1*01:02/DOB1*06:02	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
867571	LCVPNAVILQNAWKV	NS2a	1280	1294	HLA-DRB4*01:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
868918	SLGVIGMALFLEML	NS2a	1136	1150	HLA-DQA1*05:01/DOB1*02:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
167732	DQAEISGSSPLSITSEDG	NS2b	63	82	HLA-DP	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
195239	EEQTLTLRTGLLV	NS2b	91	105	HLA-DRB1*15:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
195723	LTLRTGLLVISGL	NS2b	1440	1454	HLA-DRB1*15:06	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
195869	QTLTLRTGLLVIS	NS2b	1438	1452	HLA-DRB1*15:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
139762	GLPIRYQTPAIRAEH	NS3	1712	1726	HLA-DRB1*04:03	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
180807	VTDFKGVTVFVPSI	NS3	1826	1840	HLA class II	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive-Low	0	1	1	0	1	0
195154	ALRGILPRYQTPAIR	NS3	1709	1723	HLA-DRB1*08:02	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
195564	KGVVGLVGVNGVTR	NS3	1618	1632	HLA-DRB1*15:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
195765	MRLSPVRVFNLLI	NS3	1742	1756	HLA-DRB1*13:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
31722	KKVIQLSRKRTDSEY	NS3	1855	1869	HLA-DRB1*12:02	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
391013	LBGLPIRYQTPAIRA	NS3	1696	1710	HLA-DRB1*14:02	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
4152	ARGLPIRYQTPAIRA	NS3	1757	1771	HLA-DRB1*04:07	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
539203	EEVRLAGPMVPTHS	NS3	1899	1913	HLA-DRB1*09:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
539467	KGKTVFVPSIKAGN	NS3	1830	1844	HLA-DRB1*08:03	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
539713	NKKKVIQLSRKTDSD	NS3	1853	1867	HLA-DRB1*12:02	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
539850	RGLPIRYQTPAIRAE	NS3	1711	1725	HLA-DRB1*13:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
539857	RKNGKKVILSKRTKF	NS3	1851	1865	HLA-DRB1*08:03	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
868724	RTNDWDFVVTDOISE	NS3	1873	1887	HLA-DQA1*03:01/DOB1*03:02	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
8911	DKKGVGLVGVNGVV	NS3	141	155	HLA-DRB1*15:01	81% <100%	Dengue virus 2	ICS	IFNg release	Positive	0	1	1	0	1	0
195355	GGIFLFLMSGKGIGK	NS4a	2145	2159	HLA-DRB1*11:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195414	GRAYHNLSELPETL	NS4a	2131	2145	HLA-DRB1*04:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
195635	LGMCCITASILLWY	NS4a	2176	2190	HLA-DRB1*07:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
196089	TVTGCCIFLFLMSGK	NS4a	2142	2156	HLA-DRB1*11:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539609	LPTFMTCQARNALDN	NS4a	2092	2106	HLA-DRB1*10:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539801	QDNCLTIVVAILLV	NS4a	2223	2237	HLA-DRB1*15:02	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
539804	QDQPLVAVSILFL	NS4a	2152	2206	HLA-DRB1*13:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
540154	YKQVQVILVAVSILFL	NS4a	2176	2190	HLA-DRB1*13:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
150611	TAALLVAHYAYI	NS4b	2351	2365	HLA-DRB1*01:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	0	0
150636	TLTAALLVAHYAYI	NS4b	2335	2349	HLA-DRB1*01:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	0	0
195115	AGAGLLFSIMKNTTN	NS4b	2474	2488	HLA-DRB1*11:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
195347	GAGLLFSIMKNTTNT	NS4b	2475	2489	HLA-DRB1*11:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
195621	LCVQVLMNRRTTVAL	NS4b	2405	2419	HLA-DRB1*07:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
195629	LFSIMKNTTNTRGT	NS4b	2479	2493	HLA-DRB1*03:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
195658	LFSIMKNTTNTRRG	NS4b	2478	2492	HLA-DRB1*04:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
195827	PESNLDLDRPASA	NS4b	2266	2280	HLA-DRB1*03:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
195980	SQVNPITLTAALLL	NS4b	2343	2357	HLA-DQA1*01:02/DOB1*06:02	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	0	0	0	0
539327	GLFSIMKNTTNTRR	NS4b	2477	2491	HLA-DRB1*14:02	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
867860	LLVLCVTQVLMMKRT	NS4b	2416	2430	HLA-CPB1*04:02	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
1066545	ACLCKSYAQMWSLMY	NS5	3243	3257	HLA-DRB1*04:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive-Low	0	1	1	0	1	0
195957	SRAWYMWLGARFLF	NS5	2962	2976	HLA-DRB1*01:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
180139	KSYAQMWSLMYFHR	NS5	3247	3261	HLA-DRB5*01:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
180582	KTYWYHLYGSEYTKQ	NS5	2792	2806	HLA class II	81% <100%	Dengue virus 2	ICS	IFNg release	Positive	0	1	1	0	1	0
195251	ELIMQDGRVLVPCR	NS5	3206	3220	HLA-DRB1*03:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
195380	KGKSYAQMWSLMYFHR	NS5	3232	3246	HLA-DRB1*04:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
195428	GTYMDISRRSDQRGS	NS5	3078	3092	HLA-DRB1*03:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
195801	NMISRLINRFTMRH	NS5	6	20	HLA-DRB1*08:02	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	0	0
196161	VNMISRLINRFTMR	NS5	2723	2737	HLA-DRB1*10:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
196223	WLSMYHRRDLRLAA	NS5	3253	3267	HLA-DRB1*03:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
196243	YQMKVVRVQRPTRG	NS5	3064	3078	HLA-DRB1*08:02	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
539144	CVVKPLDDRFASALTAL	NS5	3156	3172	HLA class II	81% <100%	Dengue virus 2	ICS	IFNg release	Positive	0	1	1	0	1	0
539150	DDRFASALTALNDMG	NS5	3162	3176	HLA-DRB1*04:03	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
539195	EAFKTLTYQNKVVRV	NS5	3057	3071	HLA-DRB1*09:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
539438	ISRLINRFTMRHKK	NS5	8	22	HLA-DRB1*14:02	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	0	0
539599	LMFYHRRDLRLAANA	NS5	3255	3269	HLA-DRB1*13:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
539669	MISRLINRFTMRHK	NS5	2812	2826	HLA-DRB1*14:06	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	0	0
540064	IGRMILNLRNRRTA	NS5	2812	2826	HLA-DRB1*12:02	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
738754	EETRVKRSMAALGA	NS5	2874	2888	HLA-DRB1*11:04	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	0	0
739166	IFKLTQYMKVVRVQR	NS5	3045	3059	HLA-DRB1*14:06	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
739791	NLVRLOQSGVDVFETP	NS5	2599	2613	HLA-DRB1*01:02	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	1	0	0
740675	VRSNAALGAFTDND	NS5	2880	2894	HLA-DRB1*11:04	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
866015	AIWYMWLGARFLFLE	NS5	2964	2978	HLA-CPB1*01:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
866566	EHKKLAEAFILTYQ	NS5	3051	3065	HLA-CPB1*01:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
867419	KHLAEAFILTYQNK	NS5	3053	3067	HLA-CPB1*02:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
867433	KLAEAFILTYQNKV	NS5	3054	3068	HLA-CPB1*02:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
867514	KTPVSWEEIPLYGK	NS5	3318	3332	HLA-DQA1*01:01/DOB1*05:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
868668	RKVRNSAALGAFTD	NS5	2892	2906	HLA-DRB3*02:02	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
869082	SYAQMWSLMYFHRD	NS5	3248	3262	HLA-CPB1*04:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
869307	TRKVRNSAALGAFT	NS5	2891	2905	HLA-DRB3*02:02	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
195417	GRMLNLRNRRTAG	C	89	103	HLA-DRB1*11:01	51%-80%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	1	0	0	0
195489	IGRMILNLRNRRTA	C	88	102	HLA-DRB1*11:02	51%-80%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	0	0
195899	RMLNLRNRRTAGV	C	71	85	HLA-DRB1*08:02	51%-80%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	0	0
196133	VKLITMDTGKGMQ	NS1	84	98	HLA-DRB1*03:											

32943	KPWDVVPV	N55	2821	2829	HLA class II	>0% - 50%	Dengue virus 2	ELISA	IL-2 release	Positive	0	1	1	0	1	0
539603	LNTFTNMEQLIRQM	N55	3100	3114	HLA-DRB1*10:01	>0% - 50%	Dengue virus 2	ELISPOT	IFN γ release	Positive	0	1	1	0	1	0
539668	MISRMLINRFTMKHK	N55	2725	2739	HLA-DRB1*14:04	>0% - 50%	Dengue virus 2	ELISPOT	IFN γ release	Positive	0	0	0	0	0	0
539932	SRMLINRFTMKHKA	N55	2727	2741	HLA-DRB1*08:03	>0% - 50%	Dengue virus 2	ELISPOT	IFN γ release	Positive	0	0	0	0	0	0
540065	VNGVVRLLTKPWDV	N55	2812	2826	HLA-DRB1*12:02	>0% - 50%	Dengue virus 2	ELISPOT	IFN γ release	Positive	0	1	1	0	1	0
540066	VNMISRMLINRFTMK	N55	2723	2737	HLA-DRB1*12:02	>0% - 50%	Dengue virus 2	ELISPOT	IFN γ release	Positive	0	0	0	0	0	0
866648	ETCVYNMGMGKREKL	N55	2939	2953	HLA-DRB5*01:01	>0% - 50%	Dengue virus 2	ELISPOT	IFN γ release	Positive	0	1	1	0	1	0

CD4 DENV-3 Epitopes

Epitope_ID	AA_Seq	Protein_Name	Start	End	Allele	Step	Serotype	Method/Technique	Assay_Group	Qualitative_Measure	DENV-3 constructs of vaccines (100% identity=1, green ; else 0, red)					
											TV003	TDEN	DPV1	Dengvaxia	DENVax	TVDV
195205	CLMMMLPATLAFHLT	C	104	118	HLA-DRB1*15:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
195289	FLCMMMLPATLAFHL	C	103	117	HLA-DRB1*01:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195517	INMLKRVNRNVSTGP	C	13	27	HLA-DRB1*08:02	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195519	INMLKRVNRNVSTGT	C	13	27	HLA-DRB1*08:02	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195598	KTSLCLMMLPAALA	C	100	114	HLA-DRB1*01:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195618	LCLMMLMPAALFHL	C	103	117	HLA-DRB1*01:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195803	NMLKRVNRNVSTGPO	C	14	28	HLA-DRB1*11:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195966	SLCLMMLPAALAH	C	102	116	HLA-DRB1*08:02	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195967	SLCLMMLPATLAH	C	102	116	HLA-DRB1*08:02	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
539447	YNRRKRTSLCLMM	C	94	108	HLA-DRB1*13:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539906	SINRRKRTSLCLMM	C	93	107	HLA-DRB1*13:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
540118	WGSFKKSGAVKVLRG	C	69	83	HLA-DRB1*09:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
540119	WGTFKSGAIVKVLK	C	69	83	HLA-DRB1*09:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
540120	WGTFKKGAIKVLKRG	C	69	83	HLA-DRB1*09:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
540122	WGTFKSGAIVKVLK	C	69	83	HLA-DRB1*09:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
540123	WGTFKSGAIVKVLK	C	69	83	HLA-DRB1*09:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	0	1	0	0	0
540124	WGTFKSGAIVKVLK	C	69	83	HLA-DRB1*09:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
591709	LRGFKKEISNMLSI	C	81	95	HLA-DRB1*13:02	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	0	1	0	0	0
591746	RGFKKEISNMLSI	C	82	96	HLA-DRB1*04:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	0	1	0	0	0
867744	LKSFKEISNMLSI	C	81	95	HLA-DRB3*02:02	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
867909	LRGFKREISNMLSI	C	64	78	HLA-DRB3*02:02	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
868733	RWGTKKSGAIVKVLK	C	48	62	HLA-DRB3*02:02	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	0	1	0	0	0
195968	SLQVIFVILLMLV	PreM	261	275	HLA-DRB1*15:06	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195607	YQVHNFVILLMLVTP	PreM	261	275	HLA-DRB1*15:06	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539529	KVIFVILLVTPSM	PreM	265	279	HLA-DRB1*15:06	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	1	0	0	0	0
539808	QGVIFVILLVTPS	PreM	264	278	HLA-DRB1*15:06	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
196170	YQVHNFVILLVTPH	E	130	144	HLA-DRB1*07:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	1
539476	KKELLYTKNAHAHK	E	511	525	HLA-DRB1*14:04	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	0	1	0	0	0
539856	REKLLTYTKNAHAHK	E	511	525	HLA-DRB1*04:03	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
591605	APFKVESETQHG	E	303	317	HLA-DRB1*04:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	0	1	0	0	0
591719	NEMILLTMKNRAWMV	E	474	488	HLA-DRB1*11:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
867374	KAWIVHROGFDLPL	E	482	496	HLA-DQA1*01:01/DOB1*05:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
869693	WMVHROGFDLPLPW	E	87	101	HLA-DQA1*01:01/DOB1*05:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539070	AKIVTAETRNSSFI	NS1	121	135	HLA-DRB1*13:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539457	KAKIVTAETRNSSFI	NS1	893	907	HLA-DRB1*13:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
866698	FGVTFNMLKLRDV	NS1	933	947	HLA-DPB1*04:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195128	AGVTFMFLVLLSGQI	NS2a	1159	1173	HLA-DRB1*07:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195133	AHTLMIGNSASDRM	NS2a	1179	1193	HLA-DRB1*04:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195166	ANTLMIGNSASDRM	NS2a	1179	1193	HLA-DRB1*04:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195433	GVLTFLVLLSGQIT	NS2a	1160	1174	HLA-DRB1*15:06	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	0	1	0	0	0
195456	HMIAGILFMVLLLS	NS2a	1156	1170	HLA-DRB1*11:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195630	LFTFLVLLSGQITWR	NS2a	1162	1176	HLA-DRB1*07:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	0	1	0	0	0
195734	LVSLTSNTLLTLTV	NS2a	1274	1288	HLA-DRB1*07:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
196123	VGVLFVLLVLLSGQI	NS2a	1159	1173	HLA-DRB1*07:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
540048	VLFVLLVLLSGQITW	NS2a	1161	1175	HLA-DRB1*09:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	0	1	0	0	0
865959	AGALFVLLVLLSGQI	NS2a	1159	1173	HLA-DRB1*04:02	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
867702	LIATFQKQPLTLG	NS2a	1202	1216	HLA-DPB1*01:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
869592	VQPFALGFFRLKLT	NS2a	1208	1222	HLA-DPB1*01:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
739173	IGLVSLASSLRND	NS2b	1354	1368	HLA-DRB1*11:04	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195297	FHTMWVHTRGAVLT	NS3	1519	1533	HLA-DRB1*07:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
21420	GNWETDVFVGKTVWF	NS3	31	45	HLA-DRB1*15:01	0%	Dengue virus 3	ICS	IFNg release	Positive	0	1	0	0	0	0
49767	PTRVAADEMEAMKG	NS3	1697	1711	HLA-DRB1*15:01	0%	Dengue virus 3	ICS	IFNg release	Positive	0	0	0	0	0	0
539777	PKVFCMTGPGICITTT	NS3	1579	1593	HLA-DRB1*04:03	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
540037	YGVTFWFPKAGN	NS3	1827	1841	HLA-DRB1*08:03	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	1	0	0	0	0
72654	WITDFGKGTW	NS3	1824	1838	HLA-DRB1	0%	Dengue virus 3	51 chromium	cytotoxicity	Positive	0	1	0	0	0	0
867106	HTMWVHTRGAVLTN	NS3	1520	1534	HLA-DQA1*05:01/DOB1*02:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
869689	WHYTRGAVLTNRYGR	NS3	1523	1537	HLA-DQA1*05:01/DOB1*02:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195199	AYVVIGILLTAAIV	NS4a	2227	2241	HLA-DRB1*01:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
195742	MAADVPLQWIASAIVL	NS4a	2189	2203	HLA-DRB1*07:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
539900	SGMLVMAADVPLQWIA	NS4a	2184	2198	HLA-DRB1*04:03	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
739020	GIGKTSIGKICVIVS	NS4a	2169	2183	HLA-DRB1*11:04	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
867986	LTLTAVALLLATHYA	NS4b	2347	2361	HLA-DQA1*01:02/DOB1*06:02	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	1	0	0	0	0
195408	GNVASVNMVSRLL	NS5	3	17	HLA-DRB1*03:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195780	NEDHVSFSDNSVSGV	NS5	2982	2996	HLA-DRB1*04:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
196038	TMNVASVNMVSRLL	NS5	2	16	HLA-DRB1*04:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
196221	WLWRTGLRKNKPRLC	NS5	157	171	HLA-DRB1*14:02	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
32944	KPVAAVPTV	NS5	2819	2827	HLA-DRB1	0%	Dengue virus 3	ELISA	IL-2 release	Positive	0	0	0	0	0	0
539444	IVASVNMVSRLLNR	NS5	2717	2731	HLA-DRB1*12:02	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
539726	NIVASVNMVSRLLNR	NS5	2716	2730	HLA-DRB1*15:06	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539739	NMEVQLVRQMEGEV	NS5	3103	3117	HLA-DRB1*13:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
540025	VASVNMVSRLLNRF	NS5	2718	2732	HLA-DRB1*14:04	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
591602	ACLGAAYAGQMTLTM	NS5	3242	3256	HLA-DRB1*04:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	0	1	0	0	0
738537	ASVNMVSRLLNRF	NS5	7	21	HLA-DRB1*14:06	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
740771	YGLNTFTNMEVQLVR	NS5	3096	3110	HLA-DRB1*04:07	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195830	PGFTILALFLAHYH	PreM	245	259	HLA-DRB1*15:06	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	1
867082	HPGFTILALFLAHYI	PreM	244	258	HLA-DPB1*02:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	1
191314	EGKVQYQENLYKTVI	E	126	140	HLA-DR2	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
191289	NGLRLTANPVPYKKE	E	626	640	HLA-DRB1*08:02	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	1
19376	EMILLTMKNRAWMVH	E	473	487	HLA-DRB1*13:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	0	1
195215	DFNEMILLTMKNKAW	E	470	484	HLA-DRB1*14:04	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	0	1
195341	FVLKKEVSETQHG	E	584	598	HLA-DRB1*04:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	1
195365	GHLKRLMKDKLK	E	550	572	HLA-DRB1*03:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	0	1
195623	FVLKKEVSETQHG	E	582	597	HLA-DRB1*04:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	1	0	1	0	1
196172	YQVHNFVILLVTPH	E														

28422	IRYQTATK	NS3	241	249	HLA-DR15	100%	Dengue virus 3	51 chromium	cytotoxicity	Positive	1	1	1	0	0	0
45670	NREGKVVGLYGVGV	NS3	141	155	HLA-DRB1*15:01	100%	Dengue virus 3	multimer/tetramer	qualitative binding	Positive	0	1	0	0	0	0
539052	AGKTVWVPSKAGN	NS3	1829	1843	HLA-DRB1*08:03	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	0	1	0	0	0
539278	LKGLPRHYQTATKS	NS3	1709	1723	HLA-DRB1*13:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
539607	LPIRYQTATKSEHT	NS3	1712	1726	HLA-DRB1*13:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
539844	REGKVVGLYGVGV	NS3	1615	1629	HLA-DRB1*01:02	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	1	0	0	0	0
539901	TMADSPVRPNPNL	NS3	1740	1754	HLA-DRB1*13:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
68015	VDLMCHAITT	NS3	258	267	HLA-DPw2	100%	Dengue virus 3	51 chromium	cytotoxicity	Positive	1	1	1	0	0	0
866773	FQTTTGEIGALDF	NS3	1589	1603	HLA-DQA1*03:01/DOB1*03:02	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
869278	TMWHYVTRGAVLTHNG	NS3	1521	1535	HLA-DQA1*05:01/DOB1*02:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
167755	IADLYDTGIRVPSHLAHT	NS4a	2	21	HLA class II	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
195346	GAGLAFSVMKSGVGTG	NS4b	2474	2488	HLA-DRB1*04:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
195607	LAFSVMKSGVGTGKRG	NS4b	2477	2491	HLA-DRB1*04:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
195617	LCACVQLLMRTSWAL	NS4b	2418	2432	HLA-DRB1*15:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	1	0	0	0	0
195624	LDPVIVDSKFKQLG	NS4b	2397	2411	HLA-DRB1*03:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
195684	LLMRTSWALCEALT	NS4b	2423	2437	HLA-DRB1*04:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	1	0	0	0	0
195871	QVNLVLCVAVQLLM	NS4b	2412	2426	HLA-DRB1*01:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
196137	VLCVAVQLLMRTSWA	NS4b	2417	2431	HLA-DRB1*12:02	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
196155	VMLVLCVAVQLLMR	NS4b	2413	2427	HLA-DRB1*03:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
738453	AGLAFSVMKSGVGTG	NS4b	2475	2489	HLA-DRB1*04:07	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
868978	SLAAAGAAVVLIMGL	NS4b	2306	2320	HLA-DQA1*01:02/DOB1*06:02	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
167760	KRLNQLAFEDL	NS5	15	27	HLA-DP	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	1	0	0	0	0
195136	AFIKLTQYNKVVYKV	NS5	3056	3070	HLA-DRB1*09:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
195204	CLGKAYQAMWMSLYMP	NS5	3243	3257	HLA-DRB1*04:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	1	0	0	0	0
195273	ETKGVRLKRMAISG	NS5	3138	3152	HLA-DRB1*11:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
195437	GYLRLDISKPGGAM	NS5	43	57	HLA-DRB1*08:02	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
195568	KHGGMLNRPISLRNS	NS5	2689	2703	HLA-DRB1*08:02	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
195641	LHLKGYLRDISKIP	NS5	39	53	HLA-DRB1*03:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
196222	WNVVKMLSGKDVLYL	NS5	2611	2625	HLA-DRB1*15:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
196224	WSLWVYHRRDLRLAS	NS5	3252	3266	HLA-DRB1*03:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	1	0	0	0	0
539600	LMVHFHRRDLRLASNA	NS5	3254	3268	HLA-DRB1*13:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
539604	LNTFTMEAQVLRQM	NS5	3098	3112	HLA-DRB1*10:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	1	0	0	0	0
539704	NAIFKLTQYNKVVKV	NS5	3055	3069	HLA-DRB1*09:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
539872	RDRLLASNAICSAV	NS5	3259	3273	HLA-DRB1*04:03	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
539916	SLMFFHRRDLRLASN	NS5	3253	3267	HLA-DRB1*13:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	1	0	0	0	0
540019	TYGLNRRHNMAGQLV	NS5	3095	3109	HLA-DRB1*04:03	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	1	0	0	0	0
540152	KLTWHTGYSYKAT	NS5	2789	2803	HLA-DRB1*09:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
738829	ERELKLGKCGSCCY	NS5	2927	2941	HLA-DRB1*11:04	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
867376	KAYAQMWSLMYFHR	NS5	3246	3260	HLA-DRB5*01:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	1	0	0	0	0
869489	VKPIDDFRANALL	NS5	3157	3171	HLA-DPB1*01:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
1068391	TGKPSNNMLKRVNR	C	8	22	HLA-DRB1*11:01	81% <100%	Dengue virus 3	ELISPOT	IFNg release	Positive-Low	1	1	1	0	0	0
195303	FKKEISNNMLSINKR	C	37	51	HLA-DRB1*04:01	81% <100%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	1	0	0	0	0
195306	FLRFLAIPPTAGVLA	C	6	20	HLA-DRB1*01:01	81% <100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
195469	IAFLRFLAIPPTAGV	C	4	18	HLA-DRB1*04:01	81% <100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
195518	INMLKRVNRNVSTGS	C	13	27	HLA-DRB1*08:02	81% <100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
195536	ISNNMLSINKRRKS	C	41	55	HLA-DRB1*11:01	81% <100%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	1	0	0	0	0
195559	KEISNNMLSINKRRK	C	39	53	HLA-DRB1*04:01	81% <100%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	1	0	0	0	0
195611	LARWGTFFKSGAIVK	C	19	33	HLA-DRB1*07:01	81% <100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
195649	LKGFKEISNNMLSL	C	34	48	HLA-DRB1*07:01	81% <100%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	1	0	0	0	0
195961	SNNMLKRVNRNVSTG	C	12	26	HLA-DRB1*08:02	81% <100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
196818	LKGFKEISNNML	C	81	92	HLA-DPw4	81% <100%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	1	0	0	0	0
539502	KPSNNMLKRVNRVVS	C	10	24	HLA-DRB1*08:03	81% <100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
539787	PSNNMLKRVNRVST	C	11	25	HLA-DRB1*14:04	81% <100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
539926	SNNMLSINKRRKTSL	C	42	56	HLA-DRB1*12:02	81% <100%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	1	0	0	0	0
540121	WGTFKSGAIVKLG	C	22	36	HLA-DRB1*09:01	81% <100%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	1	0	0	0	0
738443	AFRLRFLAIPPTAGV	C	52	66	HLA-DRB1*04:07	81% <100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
740207	RWGTFFKSGAIVKLG	C	68	82	HLA-DRB1*14:02	81% <100%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	1	0	0	0	0
195602	KVIFLLMLVTPSM	PreM	265	279	HLA-DRB1*01:01	81% <100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	0	1	1	1	1
195726	LTQKVFILLMLVT	PreM	262	276	HLA-DRB1*11:01	81% <100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	0	1	1	1	1
196203	VVIFLLMLVTPSMT	PreM	266	280	HLA-DRB1*07:01	81% <100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	0	1	0	1	1
540004	TSLQTKVIFLLML	PreM	260	274	HLA-DPB1*04:02	81% <100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	0	1	1	1	1
869302	TQKVVIFLLMLVP	PreM	263	277	HLA-DPB1*04:02	81% <100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	0	1	1	1	1
119327	REKLLVTKNAHAACK	E	231	245	HLA-DR2	81% <100%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	1	0	1	1	1
195252	ELLVTKNAHAACKQE	E	513	527	HLA-DRB1*04:01	81% <100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	1
195416	GRITANPWWTKKE	E	627	641	HLA-DRB1*08:02	81% <100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	1
195813	NRLVTKNAHAACK	E	512	526	HLA-DRB1*04:01	81% <100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	0	1	1	1	1
539460	KELVTKNAHAACKQ	E	512	526	HLA-DRB1*08:02	81% <100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	1
539559	LGMVHDFGSAYTA	E	710	724	HLA-DRB1*04:03	81% <100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	1
739011	GGVNSLGMVHDFG	E	704	718	HLA-DRB1*11:04	81% <100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	1
739041	GMSYAMCNTFVAKK	E	574	588	HLA-DRB1*04:07	81% <100%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
739344	KMVHDFGSAYTALF	E	31	45	HLA-DRB3*02:02	81% <100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	1
740409	SVGVLNSLGMVHDFG	E	702	716	HLA-DRB1*11:04	81% <100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	1
741746	MRCVGVGNRDFVGLSGATW	E	281	300	HLA class II	81% <100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	1
868175	MVHRQVFDPLPLPWT	E	485	499	HLA-DQA1*01:01/DOB1*05:01	81% <100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	1
190705	AKVITAETQNSFFI	NS1	894	908	HLA-DRB1*04:01	81% <100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
190996	TEQYKQFADSPKRLA	NS1	802	816	HLA-DRB5*01:01	81% <100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
195419	GSMWLKASIEVKT	NS1	981	995	HLA-DRB1*01:01	81% <100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
195577	KLTVWGDITGVLEQ	NS1	858	872	HLA-DRB1*03:01	81% <100%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
196235	YKQFQDSPKRLATAI	NS1	805	819	HLA-DRB1*03:01	81% <100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
539717	NGSLVTKNAHAACK	NS1	980	994	HLA-DRB1*09:01	81% <100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
539825	QYKQFADSPKRLATA	NS1	804	818	HLA-DRB3*02:02	81% <100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
167810	RENLLVGLAMATTLQPE	NS2a	1224	1243	HLA-DP	81% <100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	0	1	0	0	0
195632	LGFFLRKLTSRNELL	NS2a	1224	1228	HLA-DRB1*11:01	81% <100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	0	1	0	0	0
195645	LISLTCNFTFLTV	NS2a	1274	1288	HLA-DRB1*07:01	81% <100%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195836	PLPFLSKDITKRRS	NS2a	13													

195335	FTFVLLSGQITWRD	NS2a	1163	1177	HLA-DRB1*15:02	51%-80%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	0	1	0	0	0
195429	GVFFTFVLLSGQIT	NS2a	1160	1174	HLA-DRB1*04:01	51%-80%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195457	HMIAGVFTFVLLS	NS2a	1156	1170	HLA-DRB1*11:01	51%-80%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
867116	IAGVFTFVLLSGQ	NS2a	1158	1172	HLA-DPB1*01:01	51%-80%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
167823	TMRIKDDETENILVLLKTA	NS2b	83	102	HLA-DRB1*15:01	51%-80%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
195144	AIVREAIKRRRLTLI	NS3	1680	1694	HLA-DRB1*08:02	51%-80%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
38401	LPAINREAIKRRRLTL	NS3	1678	1692	HLA-DRB3*02:02	51%-80%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
539714	NGKKVQLSRKTFDT	NS3	1852	1866	HLA-DRB1*12:02	51%-80%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
54455	RKYLPAIVRE	NS3	202	211	HLA-DR15	51%-80%	Dengue virus 3	51 chromium	cytotoxicity	Positive	1	1	1	0	0	0
70708	VREAIKRRRLTLIA	NS3	1682	1696	HLA-DRB1*12:02	51%-80%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
867358	IVREAIKRRRLTLIL	NS3	1681	1695	HLA-DRB3*02:02	51%-80%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
867534	KYLPAINREAIKRRLL	NS3	1676	1690	HLA-DRB4*01:01	51%-80%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
195807	NPLTLTAVALLLITH	NS4b	2345	2359	HLA-DRB1*07:01	51%-80%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
196163	VNPLTLTAVALLLIT	NS4b	2344	2358	HLA-DRB1*01:01	51%-80%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195410	GNIVSSVNMVSRLLH	NS5	2715	2729	HLA-DRB1*03:01	51%-80%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
195806	NMVSRLLLNRFMTMTH	NS5	2722	2736	HLA-DRB1*08:02	51%-80%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
196041	TGNIVSSVNMVSRLL	NS5	2714	2728	HLA-DRB1*04:01	51%-80%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
196162	VNMVSRLLLNRFMT	NS5	9	23	HLA-DRB1*11:01	51%-80%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
539449	IVSSVNMVSRLLLNRR	NS5	2717	2731	HLA-DRB1*11:04	51%-80%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
539945	VNMVSRLLLNRFMT	NS5	2720	2734	HLA-DRB1*12:02	51%-80%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
540090	VSSVNMVSRLLLNRR	NS5	2718	2732	HLA-DRB1*14:04	51%-80%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
866168	ARLFEALGFLEND	NS5	2970	2984	HLA-DQA1*03:01/DOB1*03:02	51%-80%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	0	1	0	0	0
868748	SAKLQWVVERNMVIP	NS5	2549	2563	HLA-DQA1*01:01/DOB1*05:01	51%-80%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
591723	NMLSIINRRKXTSLC	C	90	104	HLA-DRB1*11:01	>0% -50%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	0	1	0	0	0
868645	RGLNGOGPMKLYMA	C	15	29	HLA-DRB3*02:02	>0% -50%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
190823	KLTVVGVDDIIVLEQ	NS1	85	99	HLA-DR2	>0% -50%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
195125	AGVFTFVLLSGQI	NS2a	1159	1173	HLA-DRB1*07:01	>0% -50%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195740	LWTALVSLTCSNTIF	NS2a	1270	1284	HLA-DRB1*07:01	>0% -50%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	1	0	0	0	0
539802	QFETYQLWVALVSLT	NS2a	1264	1278	HLA-DRB1*15:02	>0% -50%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	1	0	0	0	0
868109	MIAGVFTFVLLSG	NS2a	1157	1171	HLA-DPB1*04:02	>0% -50%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539432	IREAIKRRRLTLILA	NS3	1682	1696	HLA-DRB1*08:03	>0% -50%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
196168	VPLQWIASAIVLEFF	NS4a	2192	2206	HLA-DRB1*01:01	>0% -50%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
869474	VIGILTAAIAANE	NS4a	2230	2244	HLA-DQA1*01:02/DOB1*06:02	>0% -50%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195663	LLLTHTYAIIGPGLQ	NS4b	2354	2368	HLA-DRB1*07:01	>0% -50%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
196023	TAAVLLTHTYAIIG	NS4b	2350	2364	HLA-DRB1*15:01	>0% -50%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
869526	VLLLTHTYAIIGPGL	NS4b	2353	2367	HLA-DPB1*02:01	>0% -50%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	0	1	0	0	0
196239	YQNKVVKVQRPTPKG	NS5	3062	3076	HLA-DRB1*08:02	>0% -50%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0

CD4 DENV-4 Epitopes

Epitope_ID	AA_Seq	Protein_Name	Start	End	Allele	Step	Serotype	Method/Technique	Assay Group	Qualitative Measure	DENV-4 constructs of vaccines (100% identity=1, green ; else 0, red)					
											TV003	TDEN	DPV1	Dengvaxia	DENVax	TV0V
195483	IGRFRKIGRMILNLN	C	81	95	HLA-DRB1*04:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
195488	IGRMILNLNRRKST	C	87	101	HLA-DRB1*14:02	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	1	0	0	0
195580	KNKAKILITGRFKEI	C	53	67	HLA-DRB1*15:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
195578	MTLLCLIPITAMAFHL	C	102	116	HLA-DRB1*01:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195922	RWGLQKTKIAKILT	C	67	81	HLA-DRB1*07:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
196065	TPGGLVKFRSGLFS	C	24	38	HLA-DRB1*15:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
36533	LIGFRKIGRMILNLN	C	80	94	HLA-DRB1*09:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
539571	LIGFRKIGRMILNLN	C	80	94	HLA-DRB1*14:04	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
539581	LKXNKAKILITGRFKEI	C	51	65	HLA-DRB1*14:04	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
540116	WGQLKKXNKAKILIG	C	68	82	HLA-DRB1*09:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
739060	GRMLNLNRRKST	C	88	102	HLA-DRB1*14:02	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
739178	IGRMILNLNRRRST	C	87	101	HLA-DRB1*14:02	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
868732	RWGLQKKNKAKILIT	C	39	53	HLA-DRB3*02:02	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
195916	RTVFFVLMMLVAPSY	PreM	264	278	HLA-DQA1*01:02/DOB1*06:02	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	1	1
869670	WCNLSTVWVWYGTCT	PreM	180	194	HLA class II	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	1	0
167808	RDVNVKEKVVGRVISTPLAE	E	340	359	HLA class II	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195227	DSYVWVGNSALT	E	654	668	HLA-DRB1*15:06	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	1	0
195364	GGVSWMIRILGLVLV	E	449	463	HLA-DRB1*15:06	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195434	GVSWMIRILGLFVLV	E	729	743	HLA-DRB1*08:02	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	1	0
195435	GVSWMIRILGLLVLV	E	729	743	HLA-DRB1*15:06	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195625	LESTYRGAKRMALIG	E	681	695	HLA-DRB1*14:02	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	1
196036	TGIGRTVFLVLMMLV	E	44	58	HLA-DRB1*07:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	1	1
196189	VSIVIRILGLLVLV	E	451	465	HLA-DRB1*15:06	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539230	EMIMKQVITNLMYYL	E	474	488	HLA-DRB1*12:02	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	1	1
195791	NIMWQVITNLMYYL	NS1	839	853	HLA-DRB1*04:07	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539829	QYQFQSPASRLASA	NS1	805	819	HLA-DRB1*09:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
167725	AMITTLSPHLDLMELDISG	NS2a	50	69	HLA class II	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195156	ALSLTFRSTMPVLM	NS2a	1274	1288	HLA-DRB1*07:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
195157	ALSLTFRSTMSLMV	NS2a	1274	1288	HLA-DRB1*04:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195158	ALSLTFRSTPLVM	NS2a	1274	1288	HLA-DRB1*07:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195190	AVFKMSPGVYGVFL	NS2a	1204	1218	HLA-DRB1*01:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
195221	DLMLISGISGLIL	NS2a	1243	1257	HLA-DRB1*07:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195746	MAVFKMSPGVYGVFL	NS2a	1203	1217	HLA-DRB1*07:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
196061	TMSVMAVWITMAVL	NS2a	1283	1297	HLA-DRB1*03:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
196070	TRKHMILAVITLCA	NS2a	1154	1168	HLA-DRB1*08:02	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
196253	YVLGVFLRKITSRET	NS2a	1212	1226	HLA-DRB1*11:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
539130	CLRRRVTRKHMILAV	NS2a	1148	1162	HLA-DRB1*08:03	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539198	CLRRRVTRKHMILAV	NS2a	1147	1161	HLA-DRB1*13:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539360	YVLGVFLRKITSRETALM	NS2a	1215	1229	HLA-DRB1*10:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
539406	IGGQHLAIMAVFKM	NS2a	1194	1208	HLA-DRB1*13:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
539407	IGGQHLAIMAVFKM	NS2a	1194	1208	HLA-DRB1*13:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539433	IRSTMPLVMAVWITM	NS2a	1280	1294	HLA-DRB1*13:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
539434	IRSTMPLVMAVWITM	NS2a	1280	1294	HLA-DRB1*13:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539565	GLVFLRKITSRETAL	NS2a	1214	1228	HLA-DRB1*08:03	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
539627	LSLTFIRSTMPLVMA	NS2a	1275	1289	HLA-DRB1*10:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
539628	LSLTFIRSTPLVMA	NS2a	1275	1289	HLA-DRB1*08:03	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539919	SLTFRSTMPVMAVW	NS2a	1276	1290	HLA-DRB1*09:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
539921	SLTFRSTPLVMAVW	NS2a	1276	1290	HLA-DRB1*04:03	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539961	TALMVGIMAMTTLS	NS2a	1226	1240	HLA-DRB1*01:02	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
540033	VFKMSPGVYGVFLR	NS2a	1205	1219	HLA-DRB1*09:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
540053	VLGVLRLKITSRETA	NS2a	1213	1227	HLA-DRB1*14:04	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
789559	AVITTCILAILGLLT	NS2a	1161	1175	HLA-DRB1*15:02	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
867869	LTFRSTPLVMAVW	NS2a	1277	1291	HLA-DRB3*02:02	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
45689	NRKGIVGLGVGVGV	NS3	141	155	HLA-DRB1*15:01	0%	Dengue virus 4	ICS	IFNg release	Positive	0	0	0	0	0	0
53505	REGEXKLLRPWRDLR	NS3	585	599	HLA class II	0%	Dengue virus 4	ICS	IFNg release	Positive	0	0	0	0	0	0
539020	AAAFMTATPGGATD	NS3	1783	1797	HLA-DRB1*10:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
539021	AAAFMTATPGGSD	NS3	1783	1797	HLA-DRB1*04:07	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539023	AAAFMTATPGTID	NS3	1783	1797	HLA-DRB1*04:03	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539026	AAAFMTATPGGATD	NS3	1784	1798	HLA-DRB1*09:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
540077	VFEAKRLRLTLVLA	NS3	1682	1696	HLA-DRB1*08:03	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
868371	PRWLDVAVADPMAL	NS3	2067	2081	HLA-DQA1*03:01/DOB1*03:02	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
195386	GLTIVASGLLWVA	NS4a	2176	2190	HLA-DRB1*07:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
195551	IYVILTLITIALVA	NS4a	2227	2241	HLA-DRB1*01:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195648	IYVILTLITIALV	NS4a	2226	2240	HLA-DRB1*07:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195853	QLIVLITLAILGL	NS4a	2225	2239	HLA-DRB1*15:02	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
196250	YVLAILITIGLVAA	NS4a	2228	2242	HLA-DRB1*08:02	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
196251	YVLAILITIGLVAA	NS4a	2228	2242	HLA-DRB1*15:02	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539666	MCGLTIVASGLLWV	NS4a	2175	2189	HLA-DRB1*09:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
867726	IYVILTLITIGL	NS4a	2226	2240	HLA-DRB1*04:02	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
195719	LTASLAILVHYVAIL	NS4b	2346	2360	HLA-DRB1*07:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
196055	LTASLAILVHYVAIL	NS4b	2345	2359	HLA-DRB1*01:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
196082	TLTASLAILVHYVAIL	NS4b	2344	2358	HLA-DRB1*13:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
196209	WAFCEVLATGAPVL	NS4b	2427	2441	HLA-DRB1*07:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539661	MGCYQVNPVTLTAS	NS4b	2335	2349	HLA-DRB1*09:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
738500	AMGCVSNVPTTLIA	NS4b	2334	2348	HLA-DRB1*04:07	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195230	DYPMVKRYSPAPSES	NS5	3369	3383	HLA-DRB1*11:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
195593	KTFMKDGRSLVPCP	NS5	3202	3216	HLA-DRB1*03:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
195764	MPVMKRYSPAPSEGE	NS5	3371	3385	HLA-DRB1*08:02	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
195835	PKPGTRMVTMTANW	NS5	2853	2867	HLA-DRB1*04:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
195919	RWVIDENPNMDKTP	NS5	3303	3317	HLA-DRB1*03:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
196071	TRMVTMTANWLWAL	NS5	2857	2871	HLA-DRB1*04:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
196092	TYQNVKVLRTPT	NS5	3059	3073	HLA-DRB1*08:02	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
196106	YDVMVPMKRYSPAPSE	NS5	3368	3382	HLA-DRB1*11:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	1					

196060	TMPLVMAWRTIMAVL	NS2a	1283	1297	HLA-DRB1*03:01	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
196227	WVEITALLIGAAQLP	NS2a	1317	1331	HLA-DRB1*01:01	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
539131	CLRRRTYRKHMLLV	NS2a	1148	1162	HLA-DRB1*08:03	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
539687	MPFLVMAWRTIMAVLF	NS2a	1284	1298	HLA-DRB1*12:02	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
539937	STMPFLVMAWRTIMAV	NS2a	1282	1296	HLA-DRB1*13:01	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
728742	ELCRRRTYRKHMLLV	NS2a	1147	1161	HLA-DRB1*14:02	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
867100	HWQALQ03:01/DQB1*03:02	NS2a	1316	1330	HLA-DQA1*03:01/DQB1*03:02	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
195511	IMAYGLVSLGSAII	NS2b	1352	1366	HLA-DRB1*01:01	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
195662	LLLAAYVWSSGSAADI	NS2b	1381	1395	HLA-DRB1*04:01	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
196082	TNMTITLVKALUVT	NS2b	1436	1450	HLA-DRB1*08:02	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
869635	VTMTLVWYMWQVQTKOR	NS2b	1460	1474	HLA-DRB1*01:01	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
1067119	KGVLGYLNGSVVTKS	NS3	1618	1632	HLA-DRB1*15:01	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
12605	EIVDLMCHAT	NS3	255	264	HLA-DPw2	100%	Dengue virus 4	51 chromium	cytotoxicity	Positive	1	1	1	0	0	0
156711	LAPTRVVAAMEEAL	NS3	1695	1709	HLA class II	100%	Dengue virus 4	51 chromium	cytotoxicity	Positive	1	1	1	0	0	0
195298	FHTMWVHVTVSGVICH	NS3	1520	1534	HLA-DRB1*07:01	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
195583	KGVGLGYLNGSVVTK	NS3	5	19	HLA-DRB1*15:01	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
195695	LPWVLSYKVASAGIS	NS3	2016	2030	HLA-DRB1*08:02	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
195838	PNNVLVMDNEAHTFD	NS3	1750	1764	HLA-DRB1*03:01	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
331912	KRLTIMDLHPGAGKT	NS3	186	200	HLA class II	100%	Dengue virus 4	ICS	IFN γ release	Positive	1	1	1	0	0	0
539024	AAAFMTATPGTDT	NS3	1783	1797	HLA-DRB1*04:03	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	0	0	0	0	0	0
539080	ALRGLPIRQYPAVK	NS3	96	110	HLA-DRB1*13:01	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
539359	GVHTMTLVKTSRGTGI	NS3	1518	1532	HLA-DRB1*08:03	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
539520	KYGLGYNGVYKSG	NS3	7	21	HLA-DRB1*15:06	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
539803	QKGTVWPVPSKAGN	NS3	1829	1843	HLA-DRB1*08:03	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
68977	VIGLYNGV	NS3	146	154	HLA-DRB1*15:01	100%	Dengue virus 4	51 chromium	cytotoxicity	Positive	1	1	1	0	0	0
863140	TRVEMGEAAAFIMTA	NS3	1776	1790	HLA-DQA1*03:01/DQB1*03:02	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
867453	KLTDWDFVPTTDTSE	NS3	1872	1886	HLA-DQA1*03:01/DQB1*03:02	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
167758	ILTEIASLPYLSRAKL	NS4a	6	23	HLA-DP	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
195176	ASLPYLSYLSRAKL	NS4a	2103	2117	HLA-DRB1*07:01	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
195224	DNLGLVILTLITI	NS4a	2223	2237	HLA-DRB1*15:01	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
195809	NQLTVLITLITIG	NS4a	2224	2238	HLA-DRB1*08:02	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
195876	RAKLADLNIVMLHTT	NS4a	2112	2126	HLA-DRB1*03:01	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
539185	DILTEIASLPYLS	NS4a	2097	2111	HLA-DRB1*04:07	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
539313	KGAYHAIHELPELI	NS4a	2130	2144	HLA-DRB1*10:01	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	0	0	0	0	0	0
539631	LTIASLPYLSSSRA	NS4a	2059	2113	HLA-DRB1*04:03	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
728568	ANQADRELIELT	NS4a	2132	2146	HLA-DRB1*04:07	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
866951	SLPTYSLSRAKLAD	NS4a	2103	2117	HLA-DRB1*02:02	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
195377	ASLWMLVHYAIGP	NS4b	2348	2362	HLA-DRB1*13:01	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	0	1	0	0	0
195219	DELPISYPKFEKQL	NS4b	2393	2407	HLA-DRB1*03:01	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
195276	ETITLDVLRPASAW	NS4b	2263	2277	HLA-DRB1*03:01	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
195592	KTETITLDVLRPAS	NS4b	2261	2275	HLA-DRB1*03:01	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
195616	LCAGDLMLKRTTWAF	NS4b	2415	2429	HLA-DRB1*04:01	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
195720	LTASLVMLVHYAI	NS4b	2346	2360	HLA-DRB1*12:02	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	0	1	0	0	0
196048	TILDVLRPASAWTL	NS4b	2265	2279	HLA-DRB1*03:01	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
196208	WAFCEVLATGPILP	NS4b	2427	2441	HLA-DRB1*07:01	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
196226	WTLYAVATITLPTML	NS4b	2277	2291	HLA-DRB1*07:01	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
539057	AGQLLMRTTWAFCE	NS4b	2417	2431	HLA-DRB1*13:01	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
539185	DVLRPASAWTLVAV	NS4b	2268	2282	HLA-DRB1*09:01	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
539639	LWYHAIAGPLQAKA	NS4b	2354	2368	HLA-DQA1*05:01/DQB1*02:01	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	0	1	0	0	0
729202	ILDVLRPASAWTLV	NS4b	2266	2280	HLA-DRB1*01:02	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
1060543	ACLGKAYAGVWVLMY	NS5	3240	3254	HLA-DRB1*04:01	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive-Low	1	1	1	0	0	0
195735	EFIFSKVRSNAIGA	NS5	2884	2898	HLA-DRB1*08:02	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
195240	EYDYMPVMKRYSA	NS5	3365	3379	HLA-DRB1*11:01	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
195279	EYDYMPVMKRYSA	NS5	3366	3380	HLA-DRB1*11:01	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
195737	LWCGSLGLSSRAWT	NS5	3333	3347	HLA-DRB1*11:01	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
195815	NRWIEDNPMMTDKT	NS5	3302	3316	HLA-DRB1*03:01	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
195823	NWLWALLGKKKNPLR	NS5	2866	2880	HLA-DRB1*14:02	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
195858	QMWSLVMFYHRDLRL	NS5	3248	3262	HLA-DRB1*15:01	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
195879	REFESKVRNSAIGA	NS5	2883	2897	HLA-DRB1*04:01	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
196105	VDYMPVMKRYSAFFE	NS5	3368	3382	HLA-DRB1*11:01	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	0	0	0	0	0	0
196230	YQAWWVSLMYFHRDL	NS5	3246	3260	HLA-DRB1*15:01	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
539281	FEYKRSGLVEDRT	NS5	2512	2526	HLA-DRB1*09:01	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
539553	LGEFGRAKGSRAIY	NS5	2949	2963	HLA-DRB1*09:01	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
539656	MAISGDDCVVPLDERF	NS5	3164	3162	HLA class II	100%	Dengue virus 4	ICS	IFN γ release	Positive	1	1	1	0	0	0
195970	MYTGLAMTDITPFQGR	NS5	3824	3840	HLA class II	100%	Dengue virus 4	ICS	IFN γ release	Positive	1	1	1	0	0	0
196210	PHKVLKAKKELTY	NS5	3046	3060	HLA-DRB1*12:02	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
540043	VGTYGLNTTMMVEQ	NS5	3091	3105	HLA-DRB1*15:06	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
866633	ESCVNMMGKREKLI	NS5	2935	2949	HLA-DRB5*01:01	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
866838	RDLRLASMAICSAVP	NS5	3258	3272	HLA-DQA1*01:02/DQB1*06:02	100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
539898	SGKGPLRMVLAFTF	C	18	32	HLA-DRB1*15:06	81% <100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
730959	GRMLNLNGRKRSTI	C	88	102	HLA-DRB1*14:06	81% <100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
539463	KERIMVTFKVPHAKRQ	E	513	527	HLA-DRB1*04:03	81% <100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	1	1	1
540080	VRLIGFLVLWIGTN	E	455	469	HLA-DRB1*15:06	81% <100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	0	0	0	1	0	1
195822	NVMWVQITNELNVL	NS1	1	15	HLA-DRB1*04:07	81% <100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
867043	HADMVGVWIESKNGT	NS1	969	983	HLA-DQA1*01:01/DQB1*05:01	81% <100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
195771	KHMLVTVTTLCAL	NS2a	1156	1170	HLA-DRB1*08:02	81% <100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	0	0	0	0	0	0
195404	GLVSLGSAIIKNDV	NS2b	9	23	HLA-DRB1*01:02	81% <100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
195748	MAVGLVSLGSAIIK	NS2b	1353	1367	HLA-DRB1*01:01	81% <100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
195931	SALKNLMDPLPAGFV	NS2b	1363	1377	HLA-DRB1*03:01	81% <100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
539101	AKVGLVSLGSAIIK	NS2b	1354	1368	HLA-DRB1*12:02	81% <100%	Dengue virus 4	ELISPOT	IFN γ release	Positive	1	1	1	0	0	0
1392192	GREIVDLMTCHATTFT	NS3	1727	1741	HLA-DRB1*10:01	81% <100%	Dengue virus									

196252	YVLGIFLRKLTRET	NS2a	1212	1226	HLA-DRB1*11:01	>0% - 50%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
539555	LGIFLRKLTRETAL	NS2a	1214	1228	HLA-DRB1*08:03	>0% - 50%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
740701	VVTLPICRTSCLQK	NS2a	1299	1313	HLA-DRB1*11:04	>0% - 50%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
867048	HDLMEFIDGISGLI	NS2a	1243	1257	HLA-DQA1*01:01/DQB1*05:01	>0% - 50%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
740013	QLIRQMEAEGVITQD	NS5	3105	3119	HLA-DRB1*01:02	>0% - 50%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0

CD8 DENV-1 Epitopes

Epitope_ID	AA_Seq	Protein_Name	Start	End	Allele	Step	Serotype	Method/Technique	Assay_Group	Qualitative_Measure	DENV-1 constructs of vaccines (100% identity=1, green; else 0, red)					
											TV003	TDEN	DPV1	Dengvaxia	DENVax	TVDV
184844	MLKRRNRV	C	15	23	HLA-B*08:01	0%	Dengue virus 1	ELISPOT	IFNγ release	Positive	0	0	0	0	0	0
240082	MVLAITFL	C	24	32	HLA-A*02:01	0%	Dengue virus 1	ELISPOT	IFNγ release	Positive	0	0	0	0	0	0
180641	MALISVLF	NS2a	1297	1305	HLA-B*51:01	0%	Dengue virus 1	ELISPOT	IFNγ release	Positive	0	0	0	0	0	0
419037	RPMFAVGILF	NS2a	1211	1220	HLA-B*35:01	0%	Dengue virus 1	ELISPOT	IFNγ release	Positive	0	0	0	0	0	0
150254	PLVAGGLL	NS2b	1375	1383	HLA-B*07:02	0%	Dengue virus 1	ELISPOT	IFNγ release	Positive	0	0	0	0	0	0
180682	NPEIEDIF	NS3	1650	1658	HLA-B*35:01	0%	Dengue virus 1	ELISPOT	IFNγ release	Positive	0	0	0	0	0	0
32147	KLRTLVLAPTRVVAS	NS3	216	230	HLA class I	0%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	0	0	0
539750	NVRTLAPTRVASEM	NS3	1690	1706	HLA class I	0%	Dengue virus 1	ICS	IFNγ release	Positive	0	0	0	0	0	0
65549	TEPGIIPSM	NS3	1975	1983	HLA-B*53:01	0%	Dengue virus 1	51 chromium cytotoxicity	Positive	0	0	0	0	0	0	0
150674	TVMDIISR	NS5	3080	3088	HLA-A*11:01	0%	Dengue virus 1	multimer/tetramer qualitative binding	Positive	0	0	0	0	0	0	0
184787	MEVQLVRQM	NS5	3107	3115	HLA-B*40:01	0%	Dengue virus 1	ELISPOT	IFNγ release	Positive	0	0	0	0	0	0
150378	LLMLVTPSM	PreM	271	279	HLA-B*08:01	100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	0	1	1
185893	TEVTNPAVL	E	329	337	HLA-B*40:01	100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	1	1	1
186551	YENLKYSVIV	E	412	421	HLA-B*40:01	100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	1	1	1
50596	QEGAMHTAL	E	536	544	HLA-A*02:01	100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	1	1	1
150258	GPWHLGKLEL	NS1	1041	1050	HLA-B*07:02	100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	0	0	0
183246	FRRLTSREVL	NS2a	1220	1229	HLA-B*08:01	100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	0	0	0
184274	LALMATKFM	NS2a	1202	1210	HLA-B*35:01	100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	0	0	0	0	0	0
184856	MLMTGTLAVF	NS2a	1158	1167	HLA-B*35:01	100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	0	0	0
13346	EMAEALKGMPRIYQT	NS3	231	245	HLA class I	100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	0	0	0
150341	KPGTSGSPI	NS3	1606	1614	HLA-B*07:02	100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	0	0	0
150538	RRRWLDART	NS3	2068	2076	HLA-B*07:02	100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	0	0	0
180472	GEARKTFVEL	NS3	2003	2012	HLA-B*40:01	100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	0	0	0
180804	VPNYNMIIM	NS3	1751	1759	HLA-B*51:01	100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	0	0	0
183229	FPQSNVAIQD	NS3	1801	1810	HLA-B*35:01	100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	0	0	0
183598	HPGSGKTRRY	NS3	1670	1679	HLA-B*35:01	100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	0	0	0
184316	LEENMDVEIV	NS3	2049	2058	HLA-B*44:03	100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	0	0	0
184884	MPRIYQTAV	NS3	1714	1723	HLA-B*35:01	100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	0	0	0
185741	SPVRVPNYNM	NS3	1747	1756	HLA-B*35:01	100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	0	0	0
185827	SVKVASEGF	NS3	2023	2031	HLA-A*24:02	100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	0	0	0
186284	VLDGGIYRI	NS3	1492	1500	HLA-A*02:01	100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	0	0	0
186559	YKVASGFCQY	NS3	2024	2033	HLA-B*35:01	100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	0	0	0
23825	GTSGSPIVNR	NS3	133	142	HLA-B*57:01	100%	Dengue virus 1	51 chromium cytotoxicity	Positive	1	1	1	0	0	0	0
38766	LPVNLISKVY	NS3	2018	2026	HLA-B*51:01	100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	0	0	0
39095	LRGEARKTFVELMRR	NS3	536	540	HLA class I	100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	0	0	0
419032	NMIIMDEAHF	NS3	1755	1764	HLA-B*15:01	100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	0	0	0
56309	RVIDPRCL	NS3	1897	1905	HLA-B*07:02	100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	0	0	0
150649	TPQDNQLAYV	NS4a	2222	2231	HLA-B*07:02	100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	0	0	0
180780	TPQDNQLAY	NS4a	2222	2230	HLA-B*35:01	100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	0	0	0
184522	LPDTITML	NS4a	2142	2150	HLA-B*35:01	100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	0	0	0
184523	LPDTITML	NS4a	2142	2151	HLA-B*35:01	100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	0	0	0
419128	AYRHAMEEL	NS4a	2134	2142	HLA-A*24:02	100%	Dengue virus 1	ELISPOT	IFNγ release	Positive-High	1	1	1	0	0	0
41986	MLLALIAVL	NS4a	2150	2158	HLA-A2	100%	Dengue virus 1	ICS	IFNγ release	Positive	1	1	1	0	0	0
150474	NPLTLTAAV	NS4b	2348	2356	HLA-B*07:02	100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	0	0	0
186427	VYVDKAEF	NS4b	2403	2411	HLA-A*11:01	100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	0	0	0
27180	ILLMRTTWA	NS4b	2426	2434	HLA-A2	100%	Dengue virus 1	ICS	IFNγ release	Positive	1	1	1	0	0	0
41093	MANIFRGSY	NS4b	2466	2474	HLA-B*35:01	100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	0	0	0
69652	VLMILVAHYA	NS4b	2356	2364	HLA-A2	100%	Dengue virus 1	ICS	IFNγ release	Positive	1	1	1	0	0	0
74558	YLAGAGLAF	NS4b	2474	2482	HLA-B*07:02	100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	0	0	0
133702	SRNSTHEMY	NS5	2703	2711	HLA-A*02:01	100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	0	0	0
14325	ETACLGSXY	NS5	3242	3250	HLA-A*26:01	100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	0	0	0
180548	KAKSGRAIW	NS5	2959	2967	HLA-B*57:01	100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	0	0	0
182599	AQMWWQLMYF	NS5	3251	3259	HLA-B*15:01	100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	0	0	0
183147	FSCHHFFHL	NS5	3200	3208	HLA-B*08:01	100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	0	0	0
183828	IPMVTQIAM	NS5	2827	2835	HLA-B*07:02	100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	0	0	0
184898	MQRKHGGMIL	NS5	2689	2697	HLA-B*08:01	100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	0	0	0
184956	MTTEDMLSVW	NS5	3296	3305	HLA-B*58:01	100%	Dengue virus 1	ICS	IFNγ release	Positive	1	1	1	0	0	0
185279	QMQRKHGGMIL	NS5	2688	2697	HLA-B*08:01	100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	0	0	0
185354	REVVPCRNQ	NS5	3214	3223	HLA-B*40:01	100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	0	0	0
186150	TVMDVISRR	NS5	3080	3088	HLA-A*68:01	100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	0	0	0
186176	TWSIAHHQW	NS5	3286	3295	HLA-A*23:01	100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	0	0	0
73076	WSIAHHQW	NS5	3287	3295	HLA-B*57:01	100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	0	0	0
180637	MAFIARFL	C	48	56	HLA-B*35:01	81% <100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	0	0	0
183175	FIARFLRA	C	50	58	HLA-A*68:02	81% <100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	0	0	0
183220	FNMLKRRNR	C	14	23	HLA-A*33:01	81% <100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	0	0	0
183800	IMNRKRRSV	C	94	102	HLA-B*08:01	81% <100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	0	0	0
184458	LLMLLPTAL	C	83	91	HLA-B*08:01	81% <100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	0	0	0
184880	MNRKRKSVT	C	95	103	HLA-B*08:01	81% <100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	0	0	0
185102	NRKRKSVTM	C	96	104	HLA-B*08:01	81% <100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	0	0	0
185492	RRKRKSVTMLL	C	97	106	HLA-B*08:01	81% <100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	0	0	0
183596	HPGFTVWTF	PreM	244	253	HLA-B*35:01	81% <100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	0	1	1
16554	FLDLPLPWT	E	213	221	HLA-A2	81% <100%	Dengue virus 1	ICS	IFNγ release	Positive	1	1	1	1	1	1
183421	GLNSRSSTL	E	747	755	HLA-B*08:01	81% <100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	1	0	1
183654	IAGVMFTLY	E	760	768	HLA-B*35:01	81% <100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	0	1	1
184377	LGLNSRSSTL	E	746	755	HLA-B*08:01	81% <100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	1	0	1
184626	LDYGLATL	E	456	464	HLA-A*01:01	81% <100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	1	0	1
185212	PTSEQLTDTY	E	449	458	HLA-A*01:01	81% <100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	1	1	1
419036	PTDIEI	E	319	327	HLA-A*11:01	81% <100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	1	1	1
588005	RDVFEGSGATWVDVWL	E	289	302	HLA class I	81% <100%	Dengue virus 1	ICS	IFNγ release	Positive	1	1	1	1	1	1
500597	VGLSGATWVDVLEHG	E	292	308	HLA class I	81% <100%	Dengue virus 1	ICS	IFNγ release	Positive-Intermediate	1	1	1	1	1	1
180836	YCGPIIDVNL	NS1	1023	1031	HLA-B*35:01	81% <100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	0	0	0
183619	HTWTEQYKF	NS1	801	809	HLA-B57	81% <100%	Dengue virus 1	51 chromium cytotoxicity	Positive	1	1	1	0	0	0	0
60104	SPKRLAS	NS1	813	821	HLA-B*08:01	81% <100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	0	0	0
184623	LDTFQSHL	NS2a	1264	1272	HLA-A*01:01	81% <100%	Dengue virus 1	ELISPOT	IFNγ release	Positive	1	1	1	1	0	0
185468	RPMFAVGILF	NS2a														

64286	TIENTTANISLTAIA	NS4b	2300	2314	HLA class I	81% - <100%	Dengue virus 1	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
1068332	SSWEDVPYL	NS5	3323	3331	HLA-A*02:01	81% - <100%	Dengue virus 1	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
180376	ASSMYNGVVR	NS5	2809	2818	HLA-B*57:01	81% - <100%	Dengue virus 1	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
180411	DTPTFGQQR	NS5	2837	2845	HLA-A*68:01	81% - <100%	Dengue virus 1	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
180571	KPRICLREEF	NS5	2882	2891	HLA-B*07:02	81% - <100%	Dengue virus 1	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
180723	RFLEFALGF	NS5	2974	2983	HLA-A*23:01	81% - <100%	Dengue virus 1	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
182554	ALLATSIKF	NS5	3054	3062	HLA-A*11:01	81% - <100%	Dengue virus 1	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
182836	DYMTSMKRF	NS5	3373	3381	HLA-A*24:02	81% - <100%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
183275	FTNMEVQLIR	NS5	3104	3113	HLA-B*35:01	81% - <100%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
184212	KVRKIDIPQW	NS5	3178	3186	HLA-B*57:01	81% - <100%	Dengue virus 1	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
539702	MVTQIAMDTTPFGQQR	NS5	2829	2845	HLA class I	81% - <100%	Dengue virus 1	ICS	IFNg release	Positive	1	1	1	0	0	0
62903	TAKWLWGFLSRNKKPRICTR	NS5	2869	2888	HLA class I	81% - <100%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
65567	TPFGQQRVF	NS5	2839	2847	HLA class I	81% - <100%	Dengue virus 1	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
72563	WHYDEDNPVKTWAYHGSYEV	NS5	2784	2803	HLA class I	81% - <100%	Dengue virus 1	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
184003	KEISSMLNIM	C	86	95	HLA-B*40:01	51%-80%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
186524	WTMKIGIGIL	E	733	742	HLA-B*08:01	51%-80%	Dengue virus 1	ELISPOT	IFNg release	Positive	1	1	1	0	1	1
184736	MAMVLSIVS	NS2a	1295	1303	HLA-B*35:01	51%-80%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	1	0	0
419005	LLAVSGVPM	NS2b	1448	1457	HLA-B*15:01	51%-80%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
184849	MLLNRFITMA	NS5	24	32	HLA-B*08:01	51%-80%	Dengue virus 1	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
186217	VEDDRFWDL	NS5	2918	2926	HLA-B*40:01	51%-80%	Dengue virus 1	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
419208	GVEGEGLHK	NS5	2998	3006	HLA-A*11:01	51%-80%	Dengue virus 1	ELISPOT	IFNg release	Positive-High	1	1	1	0	0	0
150255	GPMKLVMAFI	C	43	52	HLA-B*07:02	>0% - 50%	Dengue virus 1	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
184835	MKLVMAFIAF	C	44	53	HLA-B*35:01	>0% - 50%	Dengue virus 1	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
183245	FQSHQLWATL	NS2a	1267	1276	HLA-B*15:01	>0% - 50%	Dengue virus 1	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
183252	FSLYHAWKTM	NS2a	1286	1295	HLA-B*35:01	>0% - 50%	Dengue virus 1	ELISPOT	IFNg release	Positive	1	1	1	1	0	0
180670	MPVTVASAAQ	NS3	1923	1932	HLA-B*35:01	>0% - 50%	Dengue virus 1	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
184896	MPVTVASAA	NS3	1923	1931	HLA-B*35:01	>0% - 50%	Dengue virus 1	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
419125	AVKSEHTGR	NS3	1722	1730	HLA-A*11:01	>0% - 50%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
184554	LPQHLTORAQ	NS4a	2107	2116	HLA-B*35:01	>0% - 50%	Dengue virus 1	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
150579	SPGKFWNTTI	NS4b	2453	2462	HLA-B*07:02	>0% - 50%	Dengue virus 1	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
150308	IPMATYGNWL	NS5	2607	2616	HLA-B*07:02	>0% - 50%	Dengue virus 1	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
185485	ROMESEGIFL	NS5	3113	3122	HLA-B*15:01	>0% - 50%	Dengue virus 1	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
5223	ATYGNWLVK	NS5	2610	2618	HLA-A*03:01	>0% - 50%	Dengue virus 1	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
539435	ISGDDCVKPIDDRFAT	NS5	3152	3168	HLA class I	>0% - 50%	Dengue virus 1	ICS	IFNg release	Positive	1	1	1	0	0	0
540100	VVKPIDDRFATALTN	NS5	3157	3173	HLA class I	>0% - 50%	Dengue virus 1	ICS	IFNg release	Positive	1	1	1	0	0	0
67362	TYGNWLVKL	NS5	2611	2619	HLA-A*24:02	>0% - 50%	Dengue virus 1	ELISPOT	IFNg release	Positive	1	1	1	0	0	0

CDB DENV-2 Epitopes

											DENV-2 constructs of vaccines (100% identity=1, green ; else 0, red)					
Epitope ID	AA Seq	Protein Name	Start	End	Allele	Step	Serotype	Method/Technique	Assay Group	Qualitative Measure	TV003	TDEN	DPIV	Dengvaxia	DENVax	TV0V
185399	RKKARSTPF	C	5	13	HLA-B*08:01	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
180818	WILRHPGFTMMIAAL	PreM	126	140	HLA class I	0%	Dengue virus 2	ICS	IFNg release	Positive	0	0	0	0	1	0
183577	HFQRALIFIL	PreM	262	271	HLA-B*08:01	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	1	1	1	1	1
183621	HYQRIETWIL	PreM	233	242	HLA-B*08:01	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	1	0
186264	VGRQEKGSKL	PreM	128	137	HLA-B*08:01	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
180563	KILIGVITWIGMNS	E	456	470	HLA class I	0%	Dengue virus 2	ICS	IFNg release	Positive	1	1	1	1	1	0
183747	LILGVIITW	E	737	745	HLA-B*58:01	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	1	1	1	1	0
184300	LATLRKYCI	E	53	61	HLA-B*08:01	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
180496	GVFTTNWILKKEKQ	NS1	936	950	HLA class I	0%	Dengue virus 2	ICS	IFNg release	Positive	0	1	0	0	1	0
150448	MMATIGIAL	NS2a	1229	1237	HLA-B*35:01	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
150449	MMATIGIAL	NS2a	1229	1238	HLA-A*02:01	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
182687	AYRIKQRGL	NS3	1497	1506	HLA-B*08:01	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
182892	ENMMEVEIWM	NS3	2049	2057	HLA-B*44:02	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
184318	LEENMEVEIWM	NS3	2048	2057	HLA-B*44:02	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
186211	VDRKGVYVGL	NS3	1615	1624	HLA-B*08:01	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
186301	VLNHRGRI	NS3	1532	1540	HLA-B*08:01	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
22816	GTSGSPIADK	NS3	1608	1617	HLA-A*11:01	0%	Dengue virus 2	multimer/tetramer	qualitative binding	Positive	0	0	0	0	0	0
22817	GTSGSPIADKK	NS3	1608	1618	HLA-A11	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
22824	GTSGSPIDVR	NS3	1608	1617	HLA-A*11:01	0%	Dengue virus 2	51 chromium	cytotoxicity	Positive	0	0	0	0	0	0
46575	NYADRWKCF	NS3	2031	2039	HLA-A24	0%	Dengue virus 2	51 chromium	cytotoxicity	Positive	0	0	0	0	0	0
65548	TPGIIIPSL	NS3	1975	1983	HLA-B35	0%	Dengue virus 2	51 chromium	cytotoxicity	Positive	0	0	0	0	0	0
150373	LULLCVTVQ	NS4b	2416	2424	HLA-A*02:01	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
150445	MLLVCVTVQ	NS4b	2415	2424	HLA-A*02:01	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
150639	TLVAVATTV	NS4b	2282	2291	HLA-A*02:01	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
180601	LULLCVTVLM	NS4b	2417	2426	HLA-B*35:01	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
180794	VATTVVTPM	NS4b	2286	2294	HLA-B*35:01	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
184439	LULLCVTVLM	NS4b	2416	2425	HLA-B*08:01	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
150698	VPIYLGKREDQ	NS5	3327	3336	HLA-B*07:02	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
163620	TITEIAVQ	NS5	3127	3135	HLA-A*02:01	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	1	0
184234	KWKSRLNAL	NS5	2503	2511	HLA-B*08:01	0%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
32939	PKWDIIPNV	NS5	2821	2829	HLA-B*55:02	0%	Dengue virus 2	51 chromium	cytotoxicity	Positive	0	0	0	0	0	0
32941	KPWVDVPMV	NS5	2821	2829	HLA class I	0%	Dengue virus 2	51 chromium	cytotoxicity	Positive	0	0	0	0	0	0
32942	KPWVDVPTV	NS5	2821	2829	HLA class I	0%	Dengue virus 2	51 chromium	cytotoxicity	Positive	0	0	0	0	0	0
150552	GPLKLFMAL	C	42	50	HLA-B*08:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
150584	TLMMMDL GEL	PreM	149	158	HLA-A*02:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	1	1	1	1	1
150456	MSYSMCKTGF	E	577	586	HLA-B*35:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	1	1	1	1	1
150531	RLRMOKLQL	E	566	574	HLA-B*08:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	1	1	1	1	1
16553	FLDLPLPWL	E	213	221	HLA-A2	100%	Dengue virus 2	ICS	TNF release	Positive	1	1	1	1	1	1
180618	LPLPWLPAGD	E	496	505	HLA-B*35:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	1	1	1	1	1
180726	RMALGDTAWDFGSL	E	691	705	HLA-B7	100%	Dengue virus 2	ICS	IFNg release	Positive	1	1	1	1	1	0
180816	WGNCGGLFGKGGVIT	E	381	395	HLA class I	100%	Dengue virus 2	ICS	IFNg release	Positive	1	1	1	1	1	1
182946	EAKQPATLR	E	329	337	HLA-A*68:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	1	1	1	1	1
183437	GMNSRSTSL	E	747	755	HLA-B*08:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	1	1	1	1	0
183708	IGMNSRSTSL	E	746	755	HLA-B*08:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	1	1	1	1	0
183841	IQMSSGNLFL	E	550	559	HLA-A*23:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	1	1	1	1	1
184571	LQLKGMYSYM	E	572	581	HLA-B*08:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	1	1	1	1	1
184899	MRRGAKRMAL	E	686	694	HLA-B*08:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	1	1	1	1	0
184900	MRRGAKRMAL	E	686	695	HLA-B*08:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	1	1	1	1	0
184920	MSGNLLFTG	E	552	561	HLA-B*58:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	1	1	1	1	1
185758	SRSLSVSL	E	750	759	HLA-B*08:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	1	1	1	0	0
185831	SYSMCTGKF	E	578	586	HLA-A*23:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	1	1	1	1	1
27081	ILGDTAWDFG	E	96	105	HLA class I	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	1	1	1	1	0
51388	QLKGMYSYM	E	573	581	HLA-B*08:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	1	1	1	1	1
583702	GVSGSGVSDVLEHSGCV	E	14	31	HLA class I	100%	Dengue virus 2	ICS	IFNg release	Positive-Low	1	1	1	1	1	1
150259	GPWHLGLKLE	NS1	1041	1050	HLA-B*35:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
184512	LMWVKQTEL	NS1	841	850	HLA-B*08:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
185465	RLPKKEENL	NS1	1111	1120	HLA-B*08:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
186474	WKTWGWAKMAL	NS1	890	899	HLA-B*08:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
19225	GEDGCGYGM	NS1	1100	1108	HLA-B*40:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
150415	LTDALALGM	NS2a	1250	1258	HLA-A*01:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
180671	MSFRDLGRVM	NS2a	1175	1184	HLA-B*35:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	1	0	1	0
150304	IMAVGMQSI	NS2b	1353	1361	HLA-A*02:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
180531	IPMTGPI VAG	NS2b	1371	1380	HLA-B*35:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
180646	IMAVGMQSI	NS2b	1354	1362	HLA-B*35:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
183729	IMAVGMQSI	NS2b	1353	1362	HLA-B*08:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
11125	EALRGLPIR	NS3	233	241	HLA class I	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
13358	EMEALRGLPIRYQT	NS3	230	244	HLA class I	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
13690	TPGSRDPF	NS3	1792	1800	HLA-B*35:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
150137	APTRVVAEM	NS3	222	231	HLA-B7	100%	Dengue virus 2	multimer/tetramer	qualitative binding	Positive	0	1	1	0	1	0
150217	FPQSNAPIM	NS3	1800	1808	HLA-B*35:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	1	0	0	0
150526	RIYSDPLAKL	NS3	2074	2083	HLA-A*11:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
150595	SOIGAGVYK	NS3	1509	1517	HLA-A*11:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
150644	TPGIIIPSMF	NS3	1975	1984	HLA-B*53:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
150693	VPNYLLIM	NS3	1750	1758	HLA-B*07:02	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
150740	YLPALVREA	NS3	1678	1686	HLA-A*02:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
180360	AAEGINYADRRWCFD	NS3	2026	2040	HLA-A24	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
180407	DNINTPEGIIPSMFE	NS3	496	510	HLA-B35	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
180428	EGEMKEEGEVQIAL	NS3	1561	1575	HLA class I	100%	Dengue virus 2	ICS	IFNg release	Positive	0	1	1	0	1	0
180440	EREIPERSNGSHWE	NS3	336	350	HLA-B*57:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	0	0	1	0
180460	FPQSNAPIM	NS3	1800	1809	HLA-B*35:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	1	0	0	0
180503	HPGAGCKTRY	NS3	1669	1678	HLA-B*35:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	0	0
180507	HTGREVDLMCHATE	NS3	1726	1740	HLA class I	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
180575	KRYLPANREAIKRG	NS3	201	215	HLA-A*31:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
180589	LDARISYDPLALKEF	NS3	596	610	HLA class I	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
180605	LMCHATTMT	NS3	1734	1742	HLA-B*15:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
180617	LPIRYQTPI	NS3	1713	1722	HLA-B*35:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
180642	MEALRGLPIRYQT	NS3	1706	1720	HLA class I	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
180734																

184814	MGLGKGWPL	NS4b	2319	2327	HLA-B*08:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
150309	IPMSTYWGNNL	NS5	2605	2614	HLA-B*07:02	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
150655	TPRMCTREEF	NS5	2881	2890	HLA-B*35:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
150750	YDYMPYSMK	NS5	3370	3378	HLA-A*01:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
183027	NIGTAINVQ	NS5	3353	3361	HLA-A*02:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive-Low	0	0	1	0	0	0
180443	ETACLGKSYA	NS5	3241	3250	HLA-A*26:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
180643	MAMMTDTPFGQQRV	NS5	2832	2846	HLA class I	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
180675	MPMSKRFRRR	NS5	3374	3383	HLA-B*53:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
180675	MSTYGVNVLRLQSGV	NS5	2607	2621	HLA class I	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
180814	WAYHGSYET	NS5	2794	2802	HLA-B*35:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
180817	WHYDDQHPY	NS5	2783	2791	HLA-B*35:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
184131	KREDQWCGSL	NS5	3332	3341	HLA-B*08:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
185491	RREEEAGVL	NS5	3381	3390	HLA-B*08:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
185931	TKQTGSASSM	NS5	2802	2811	HLA-B*08:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
190862	MVTQMAMTDTTPFGQQR	NS5	2828	2844	HLA class I	100%	Dengue virus 2	ICS	IFNg release	Positive	0	1	1	0	1	0
53476	REDQWCGSL	NS5	3333	3341	HLA-B*40:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
539436	ISGDDCVVKPLDDRFA	NS5	3151	3166	HLA class I	100%	Dengue virus 2	ICS	IFNg release	Positive	0	1	1	0	1	0
69671	VLNPYMPVS	NS5	2673	2681	HLA-A*02:01	100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
110018	VAFRLRLTI	C	51	59	HLA-B*08:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
184378	LGMILQGRGPI	C	35	44	HLA-B*08:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
184643	LTIPPTAGIL	C	21	30	HLA-B*08:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
186354	VQQLTKRFL	C	26	35	HLA-B*08:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
150224	FTIMAILAY	PreM	247	256	HLA-B*35:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	1	1	1	0	1
150299	ILLTAVAPSM	PreM	270	279	HLA-B*08:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	1	1	1	0	1
150571	SLLFKTEGTV	PreM	136	145	HLA-A*02:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	1	1	1	1	1
150115	AIYGAAGFSV	E	722	731	HLA-A*02:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	1	1	1	1	0
150319	ITEALITGY	E	450	458	HLA-A*01:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	1	1	1	1	1
150399	LQMEIKAWLV	E	231	240	HLA-B*08:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	1	1	1	1	1
150529	RLITVNPV	E	630	638	HLA-A*02:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	1	1	1	1	1
150578	SPCKIPFEM	E	611	620	HLA-B*35:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	1	1	1	1	1
150725	WLVHVRQWFL	E	486	494	HLA-B*08:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	1	1	1	1	1
180453	FGAIYGAAF	E	720	728	HLA-B*35:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	1	1	1	1	0
180528	IPFEMIDLEK	E	615	624	HLA-B*35:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	1	1	1	1	1
183310	GAAFGVGSW	E	725	733	HLA-B*58:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	1	1	1	1	0
183748	ILIGVITW	E	737	745	HLA-B*58:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
183781	IMDLKRRHL	E	619	628	HLA-B*08:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	1	1	1	1	1
183840	IQKETLVTF	E	512	520	HLA-B*15:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	1	1	1	1	1
184337	LEKRLHVL	E	622	631	HLA-B*08:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	1	1	1	1	1
184755	MDELRKRL	E	620	628	HLA-B*08:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	1	1	1	1	1
141407	MENKAWLVHRQWFLD	E	201	215	HLA-B*37:01	81% <100%	Dengue virus 2	ICS	IFNg release	Positive	1	1	1	1	1	1
180450	FAGPVSQHNY	NS1	1022	1031	HLA-B*35:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	1	0	0	0
180689	NRVAHDMGVWIESA	NS1	966	980	HLA class I	81% <100%	Dengue virus 2	ICS	IFNg release	Positive	0	1	1	0	1	0
182938	EKEENLVMSL	NS1	1115	1124	HLA-B*08:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
185342	RAVHADMGY	NS1	192	200	HLA-B*58:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
150206	FLEEMLRTRV	NS2a	1131	1140	HLA-A*02:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
150391	LMMTGITVL	NS2a	1228	1237	HLA-B*08:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
150457	MTDDIGMVL	NS2a	1191	1199	HLA-A*01:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
150540	RPTFAAGLL	NS2a	1211	1220	HLA-B*07:02	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
150741	YQLAVITMA	NS2a	1157	1165	HLA-A*02:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
183741	ILCVPNAVIL	NS2a	1279	1288	HLA-B*08:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
183825	IPALATIKGL	NS2a	1319	1328	HLA-B*08:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
184864	MLRTRVGTK	NS2a	1149	1157	HLA-B*08:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
150101	AAAWVWEV	NS2b	1463	1471	HLA-A*02:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
150243	GLLTVCYVL	NS2b	1381	1389	HLA-A*02:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
150381	LLVSGFLPV	NS2b	1448	1457	HLA-A*02:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
150425	LVISGLFPV	NS2b	1449	1457	HLA-A*02:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
150584	SPILSTISE	NS2b	1416	1425	HLA-B*35:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
150610	TAAAWVLWEV	NS2b	117	126	HLA-A*02:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
180529	IPITAAWV	NS2b	1459	1467	HLA-B*35:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
180538	ISGLFPVSPITAAA	NS2b	106	120	HLA class I	81% <100%	Dengue virus 2	ICS	IFNg release	Positive	0	1	1	0	1	0
183819	IPITAAWVYL	NS2b	1459	1468	HLA-B*08:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
11063	EAHFTDPASIAARGY	NS3	285	299	HLA class I	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
150450	MPVTHSSAA	NS3	1922	1930	HLA-B*08:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
150451	MPVTHSSAAQ	NS3	1922	1931	HLA-B*35:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
180611	LMRRGDLPPWLAYRV	NS3	2011	2025	HLA-B*55:02	81% <100%	Dengue virus 2	ICS	IFNg release	Positive	0	0	1	0	1	0
180625	LPVWLAYRV	NS3	2017	2025	HLA-B*51:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	1	0	1	0
180626	LPVWLAYRVA	NS3	2017	2026	HLA-B*51:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	1	0	1	0
180756	STRVEMGEAAGFMT	NS3	301	315	HLA-B*40:06	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive-Low	0	1	1	0	1	0
185388	RIKQKGLIGY	NS3	1499	1508	HLA-B*15:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
186242	VENMGEAAGF	NS3	1779	1788	HLA-B*44:03	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
22823	GTSGSPVDK	NS3	133	142	HLA-A11	81% <100%	Dengue virus 2	51 chromium	cytotoxicity	Positive	0	0	0	0	0	0
54176	RIKQKGL	NS3	1499	1506	HLA-B8	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
8910	DKKGRVGL	NS3	1616	1624	HLA-B8	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
150461	MTQKARNAL	NS4a	2110	2118	HLA-B*07:02	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
150612	TAEAGRAY	NS4a	2126	2134	HLA-B*35:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
150752	VYVAILTV	NS4a	2229	2237	HLA-A*02:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
150753	VYVAILTVV	NS4a	2229	2238	HLA-A*02:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
185447	RNALDNLAIL	NS4a	2115	2124	HLA-B*08:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
151562	QDLYVAIL	NS4a	2226	2235	HLA-B*08:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
150377	LLLVAHYAI	NS4b	2355	2363	HLA-A*02:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	0	0	0	0
150389	LMWRTWAL	NS4b	2425	2433	HLA-B*08:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
150686	VLMRMTTWA	NS4b	2424	2432	HLA-B*08:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
180380	ATGPISLW	NS4b	2440	2448	HLA-B*58:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
180387	CEALTALTGPISTLW	NS4b	191	205	HLA class I	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
180802	VPLLAGCY	NS4b	2334	2342	HLA-B*35:01	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
182747	CYSQVNPITL	NS4b	2341	2350	HLA-A*24:02	81% <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	0	1	0
183670	I															

180433	EPGQLKLNWF	E	663	672	HLA-B*35:01	>0% - 50%	Dengue virus 2	ELISPOT	IFNγ release	Positive	1	0	1	1	1	1
184467	LLQMEDKAWL	E	478	487	HLA-B*08:01	>0% - 50%	Dengue virus 2	ELISPOT	IFNγ release	Positive	0	0	0	0	0	0
150300	ILLVAVSFV	NS2a	1146	1154	HLA-A*02:01	>0% - 50%	Dengue virus 2	ELISPOT	IFNγ release	Positive	0	1	1	0	1	0
150640	TMTDDIGMGV	NS2a	1176	1185	HLA-A*02:01	>0% - 50%	Dengue virus 2	ELISPOT	IFNγ release	Positive	0	1	1	0	1	0
180717	RDLGRVMVMVGATMT	NS2a	51	65	HLA class I	>0% - 50%	Dengue virus 2	ICS	IFNγ release	Positive	0	0	1	0	1	0
180735	RVGTRKHAILLVAVSF	NS2a	1153	1167	HLA class I	>0% - 50%	Dengue virus 2	ICS	IFNγ release	Positive	0	1	1	0	1	0
186041	TRVGTCKHAIL	NS2a	1152	1161	HLA-B*08:01	>0% - 50%	Dengue virus 2	ELISPOT	IFNγ release	Positive	0	1	1	0	1	0
10643	DVKKDLISY	NS3	71	79	HLA-B62	>0% - 50%	Dengue virus 2	51 chromium	cytotoxicity	Positive	0	1	1	0	1	0
150346	KTFDSEYVK	NS3	1863	1871	HLA-A*11:01	>0% - 50%	Dengue virus 2	multimer/tetramer	qualitative binding	Positive	0	1	1	0	1	0
17802	FSPGTSGSPIIDKKG	NS3	130	144	HLA class I	>0% - 50%	Dengue virus 2	ELISPOT	IFNγ release	Positive	0	1	1	0	1	0
180623	LPVWLAYKV	NS3	2017	2025	HLA-B*51:01	>0% - 50%	Dengue virus 2	ELISPOT	IFNγ release	Positive	0	1	1	0	0	0
180624	LPVWLAYKVA	NS3	2017	2026	HLA-B*51:01	>0% - 50%	Dengue virus 2	ELISPOT	IFNγ release	Positive	0	1	1	0	0	0
180750	SPGTSGSPIIDKKGK	NS3	131	145	HLA-A*11:01	>0% - 50%	Dengue virus 2	ELISPOT	IFNγ release	Positive	0	1	1	0	1	0
22818	GTSGPSIIDK	NS3	133	142	HLA-A*11:01	>0% - 50%	Dengue virus 2	ELISPOT	IFNγ release	Positive	0	1	1	0	1	0
22819	GTSGPSIIDKK	NS3	133	143	HLA-A11	>0% - 50%	Dengue virus 2	51 chromium	cytotoxicity	Positive	0	1	1	0	1	0
25929	IEPSWADVKKDLISY	NS3	65	79	HLA class I	>0% - 50%	Dengue virus 2	ELISPOT	IFNγ release	Positive	0	1	1	0	1	0
790	ADVKKDLISYGGGWK	NS3	70	84	HLA class I	>0% - 50%	Dengue virus 2	ELISPOT	IFNγ release	Positive	0	1	1	0	1	0
16757	FLLVAHYAI	NS4b	112	120	HLA-A2	>0% - 50%	Dengue virus 2	ICS	TNF release	Positive	0	0	1	0	1	0
35568	LETKKDL	NS4b	2249	2256	HLA-B8	>0% - 50%	Dengue virus 2	ELISPOT	IFNγ release	Positive	0	1	1	0	1	0
150554	RTTWSIAK	NS5	3283	3291	HLA-A*11:01	>0% - 50%	Dengue virus 2	ELISPOT	IFNγ release	Positive	0	1	1	0	1	0
161186	RLTTKPWDVVPMTQ	NS5	326	340	HLA-B*55:02	>0% - 50%	Dengue virus 2	ICS	IFNγ release	Positive	0	1	1	0	1	0
180681	NEEYTDYMPMSMKRFR	NS5	3367	3381	HLA class I	>0% - 50%	Dengue virus 2	ELISPOT	IFNγ release	Positive	0	1	1	0	1	0
182855	EAVEDGRFWE	NS5	2915	2924	HLA-B*58:01	>0% - 50%	Dengue virus 2	ELISPOT	IFNγ release	Positive	0	0	0	0	0	0
186219	VEDGRFWEL	NS5	2917	2925	HLA-B*40:01	>0% - 50%	Dengue virus 2	ELISPOT	IFNγ release	Positive	0	0	0	0	0	0
32943	KPWVDVPMV	NS5	2821	2829	HLA-B*51:01	>0% - 50%	Dengue virus 2	51 chromium	cytotoxicity	Positive	0	1	1	0	1	0
74305	YILRDVSKK	NS5	517	525	HLA class I	>0% - 50%	Dengue virus 2	ELISPOT	IFNγ release	Positive	0	1	1	0	1	0

CD8 DENV-3 Epitopes

Epitope_ID	AA_Seq	Protein_Name	Start	End	Allele	Step	Serotype	Method/Technique	Assay Group	Qualitative Measure	DENV-3 constructs of vaccines (100% identity=1, green ; else 0, red)					
											TV003	TDEN	DPV1	Dengvaxia	DENVax	TV DV
180390	CLMMMLPATL	C	104	113	HLA-A*02:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
180609	LMMMLPATL	C	105	113	HLA-A*02:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
183793	IMKIGIGVL	E	452	461	HLA-B*08:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	0	1
184412	LKGMYSAMCL	E	156	165	HLA-B*08:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	1
186470	WIMKIGIGVL	E	451	460	HLA-B*08:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	0	1
185464	RPINKEENM	NS1	1109	1118	HLA-B*35:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
183395	GKKHMIAGVL	NS2a	1153	1162	HLA-B*08:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	0	1	0	0	0
3124	AMKGLPIRY	NS3	1708	1716	HLA-B62	0%	Dengue virus 3	51 chromium	cytotoxicity	Positive	0	0	0	0	0	0
590435	TRVVAEMEEAMKGLPI	NS3	1698	1714	HLA class I	0%	Dengue virus 3	ICS	IFNg release	Positive-Low	0	0	0	0	0	0
180572	KPRLCTREEF	NS5	2879	2888	HLA-B*07:02	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
180801	VMGITAEVWLW	NS5	2862	2871	HLA-B*53:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
186127	TTWEDVPYL	NS5	3321	3329	HLA-A*02:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	1	0	0	0	0
32944	KPWVDVPTV	NS5	2819	2827	HLA class I	0%	Dengue virus 3	51 chromium	cytotoxicity	Positive	0	0	0	0	0	0
180464	FTLALFLAH	PreM	247	256	HLA-B*35:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	1
180504	HPGFTILALF	PreM	244	253	HLA-B*35:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	1
185685	SLFKTASG	PreM	136	144	HLA-B*08:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	1
180613	LPEDGDNY	E	82	90	HLA-B*35:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	1	0	1	1	1
180657	MLVTPSMTM	E	273	281	HLA-B*35:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	0	1	0	0	0
183843	IQNSGGTSIF	E	131	140	HLA-B*15:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	1	0	1	0	0
184299	LATLRLKLCI	E	53	61	HLA-B*08:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	1
184536	LPFYTLGLE	E	453	462	HLA-B*35:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	1
185419	RLKMDKLEL	E	148	156	HLA-B*08:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0
180537	RPGYHTQTA	NS1	1030	1038	HLA-B*07:02	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
180546	RSTCLPPLRY	NS1	1087	1096	HLA-A*01:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
180738	RYMGEDGCWY	NS1	1095	1104	HLA-A*24:02	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
182939	EKENMMVSL	NS1	1113	1122	HLA-B*08:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
184585	LRTITVSGKL	NS1	64	73	HLA-B*08:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
185573	RYMGEDGCW	NS1	1095	1103	HLA-A*24:02	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
185734	SPKRLATAI	NS1	811	819	HLA-B*08:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
186175	TWRDMHTLI	NS2a	1174	1183	HLA-A*24:02	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
182917	EKFDAAGR	NS3	2083	2091	HLA-A*33:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
186234	VEIWTKEGK	NS3	2053	2062	HLA-B*40:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
19434	GESRKTFFE	NS3	2001	2009	HLA-B7	100%	Dengue virus 3	51 chromium	cytotoxicity	Positive	1	1	1	0	0	0
19435	GESRKTFFEL	NS3	211	220	HLA-B*40:01	100%	Dengue virus 3	ICS	IFNg release	Positive	1	1	1	0	0	0
22820	GTSGSPIINR	NS3	133	142	HLA-A*11:01	100%	Dengue virus 3	51 chromium	cytotoxicity	Positive	1	1	1	0	0	0
22821	GTSGSPIINRE	NS3	133	143	HLA-A11	100%	Dengue virus 3	ICS	IFNg release	Positive	1	1	1	0	0	0
34605	KYDRKWCF	NS3	240	248	HLA-A24	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
62183	SVKDLISY	NS3	71	79	HLA-B62	100%	Dengue virus 3	51 chromium	cytotoxicity	Positive	1	1	1	0	0	0
183165	IFNMMLPIPE	NS4a	2205	2214	HLA-A*33:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
183796	IMKSVGTGK	NS4b	2481	2489	HLA-A*03:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
37534	LLLMLRTSWA	NS4b	2423	2431	HLA-A2	100%	Dengue virus 3	biological activity	proliferation	Positive	1	1	1	0	0	0
180650	KPIDDFAN	NS5	3158	3166	HLA-B*07:02	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
180650	MEITAEWLW	NS5	2863	2871	HLA-B*58:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
180728	RPRLCTREEF	NS5	2879	2888	HLA-B*07:02	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
182553	ALLALNDMGK	NS5	3167	3176	HLA-A*03:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
185710	SMINGVVKL	NS5	318	326	HLA-A*02:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
180577	KSGAIKVLK	C	74	82	HLA-A*11:01	81% <-100%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	1	0	0	0	0
184260	LAIPPTAGVL	C	57	66	HLA-B*08:01	81% <-100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
184845	MLKRVNRV	C	15	23	HLA-B*08:01	81% <-100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
184658	LTKQVIFIL	PreM	262	271	HLA-B*08:01	81% <-100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	1
13119	ELKGMYSAM	E	155	163	HLA-B*08:01	81% <-100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0
15796	FFDLPLPWT	E	211	219	HLA-A2	81% <-100%	Dengue virus 3	ICS	IFNg release	Positive	1	1	1	1	1	1
184568	LPWTSAGAT	E	496	504	HLA-B*35:01	81% <-100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	0	1
184924	MSYAMCTNTF	E	575	584	HLA-B*35:01	81% <-100%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
184965	MVHQIFGSAY	E	713	722	HLA-B*15:01	81% <-100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	1
186029	TPTWNRKEL	E	226	234	HLA-B*07:02	81% <-100%	Dengue virus 3	ELISPOT	IFNg release	Positive-Low	0	1	0	1	1	1
589817	SGATWVDVLEHGGCV	E	268	283	HLA class I	81% <-100%	Dengue virus 3	ICS	IFNg release	Positive-High	1	1	1	1	1	1
184254	LAILFEEMV	NS2a	1140	1148	HLA-B*35:01	81% <-100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
185978	TMGVLCILAL	NS2a	1134	1143	HLA-B*08:01	81% <-100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	0	1	0	0	0
180622	LPVLAHKVA	NS3	226	235	HLA-B*35:01	81% <-100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
184065	KLNDWDFV	NS3	399	407	HLA-A*02:01	81% <-100%	Dengue virus 3	ELISPOT	IFNg release	Positive-High	1	1	1	0	0	0
37494	LLGLMLLL	NS4a	2148	2156	HLA-A2	81% <-100%	Dengue virus 3	ICS	IFNg release	Positive	1	1	1	0	0	0
180381	ATGPITTLW	NS4b	2439	2447	HLA-B*58:01	81% <-100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
180788	TKRDLGMSK	NS4b	2250	2259	HLA-A*11:01	81% <-100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
180737	RYLEFALGF	NS5	2971	2980	HLA-A*24:02	81% <-100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
183587	HMIAGVFFTF	NS2a	368	377	HLA-A*24:02	51%-80%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
184819	MIAGVFFTF	NS2a	369	377	HLA-B*35:01	51%-80%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
180678	MVSRLLNLR	NS5	2723	2731	HLA-A*11:01	51%-80%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
184264	LAKRFSRGL	C	29	37	HLA-B*08:01	>0% -50%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
184265	LAKRFSRGLL	C	29	38	HLA-B*08:01	>0% -50%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
185260	QLAKRFSRG	C	28	36	HLA-B*08:01	>0% -50%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
183723	IKLTVVVDI	NS1	857	866	HLA-B*08:01	>0% -50%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
69612	VLLLVTHYA	NS4b	2353	2361	HLA-A2	>0% -50%	Dengue virus 3	ICS	IFNg release	Positive	1	0	1	0	0	0
186215	VEDEDFWKL	NS5	2915	2923	HLA-B*40:01	>0% -50%	Dengue virus 3	ELISPOT	IFNg release	Positive	>0	0	0	0	0	0

CD8 DENV-4 Epitopes

Epitope_ID	AA_Seq	Protein_Name	Start	End	Allele	Step	Serotype	Method/Technique	Assay Group	Qualitative Measure	DENV-4 constructs of vaccines (100% identity=1, green ; else 0, red)					
											TV003	TDEN	DPIV	Dengvaxia	DENVax	TVDV
180810	VTYECPLLV	PreM	162	170	HLA-A*02:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	1
182707	CNLTSTWVMY	PreM	181	190	HLA-A*30:02	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	1	0
186303	VLMMLVAPSY	PreM	17	26	HLA-B*15:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	1	1
185147	NYKERMVTF	E	511	519	HLA-A*24:02	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	1	1	1
185817	SWMIRLIGF	E	161	170	HLA-A*24:02	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	1	0
240130	PPASDLKYSW	NS1	880	889	HLA-B*53:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
167725	AMTTLSIPHDLMELIDGIS	NS2a	50	69	HLA class I	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
239411	ALWYVWQVK	NS2b	1463	1471	HLA-A*03:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
418991	IPVIMALWY	NS2b	1458	1466	HLA-B*35:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
180640	MALKDFKEF	NS3	2079	2087	HLA-B*35:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
182563	ALSEGVYRI	NS3	1491	1499	HLA-A*02:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
186008	TPPGATDPF	NS3	1791	1799	HLA-B*35:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
186602	YSDPLALRE	NS3	2077	2085	HLA-A*01:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
239768	GTSGSPIINK	NS3	1607	1616	HLA-A*03:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
180383	ATGPVLTLW	NS4b	2436	2444	HLA-B*58:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
180587	LATGPVLTLW	NS4b	2435	2444	HLA-B*53:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
184375	LKGSYAQMWW	NS5	3246	3254	HLA-B*57:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
419017	MPAMKRYASAP	NS5	3371	3380	HLA-B*35:01	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
419048	SPRLCTREEF	NS5	2877	2886	HLA-B*07:02	0%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
182971	EMCEDTVTV	PreM	156	164	HLA-B*35:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	1	1
583701	GVSGAVVVDLVLEHGCV	E	14	31	HLA class I	100%	Dengue virus 4	ICS	IFNg release	Positive-Low	1	1	1	1	1	1
183667	IGKASLIEV	NS1	986	994	HLA-B*40:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
185050	NFLEVEDYGF	NS1	925	934	HLA-A*24:02	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
182562	ALPVYLMTL	NS2a	1329	1337	HLA-A*02:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
184566	LPVYLMTLMK	NS2a	1330	1339	HLA-B*35:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
182901	ETLNMITLL	NS2b	1434	1442	HLA-B*40:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
186584	YPLAIPVTM	NS2b	1454	1462	HLA-B*53:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
156711	LAPTRVVAEMEAEAL	NS3	1695	1709	HLA-B7	100%	Dengue virus 4	51 chromium cytotoxicity	Positive	1	1	1	1	0	0	0
180473	GEFRLRGEOR	NS3	1995	2004	HLA-B*40:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
180648	MEGVFHTMW	NS3	1516	1524	HLA-B*44:03	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
180778	TPEGIPIITLF	NS3	1974	1983	HLA-B*07:02	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
180843	YPKTKLTDDWD	NS3	1868	1877	HLA-B*35:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
182919	EFRLRGEOR	NS3	1996	2004	HLA-A*33:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
183407	GLFGKTOGVG	NS3	1503	1512	HLA-A*02:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
183427	GLYNGVVTK	NS3	1622	1631	HLA-A*03:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
184079	KLTWDVFWV	NS3	398	406	HLA-A*02:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
186347	VPNNYLIVM	NS3	1749	1757	HLA-B*35:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
195838	PNYNLIVDEAHFTD	NS3	1750	1764	HLA class I	100%	Dengue virus 4	ICS	IFNg release	Positive	1	1	1	0	0	0
22822	GTSGSPIINRK	NS3	133	143	HLA-A11	100%	Dengue virus 4	51 chromium cytotoxicity	Positive	1	1	1	0	0	0	0
14918	LAPTRVVAEME	NS3	221	232	HLA-B7	100%	Dengue virus 4	51 chromium cytotoxicity	Positive	1	1	1	0	0	0	0
539058	AHFTDPSSVAAEYIST	NS3	1760	1776	HLA class I	100%	Dengue virus 4	ICS	IFNg release	Positive	1	1	1	0	0	0
539576	LIVNDEAHFTDPSSVAA	NS3	1754	1770	HLA class I	100%	Dengue virus 4	ICS	IFNg release	Positive	1	1	1	0	0	0
540029	VEMGEAAAFMTATPPG	NS3	1778	1794	HLA class I	100%	Dengue virus 4	ICS	IFNg release	Positive	1	1	1	0	0	0
581940	APTRVVAEMEALRGL	NS3	1558	1574	HLA class I	100%	Dengue virus 4	ICS	IFNg release	Positive-Low	1	1	1	0	0	0
65552	TPEGIIPITL	NS3	500	508	HLA-B*35:01	100%	Dengue virus 4	51 chromium cytotoxicity	Positive	1	1	1	0	0	0	0
182926	EIASLPTYL	NS4a	2101	2109	HLA-A*68:02	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
184531	ELISLETML	NS4a	2140	2149	HLA-B*35:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
185881	TEIASLPTYL	NS4a	2100	2109	HLA-B*40:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
186620	YVILITLTI	NS4a	2228	2236	HLA-A*24:02	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
150647	TPMLRHTIEN	NS4b	2288	2297	HLA-B*07:02	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
180379	ATGPILTLW	NS4b	2436	2444	HLA-B*58:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
180764	TETITLDVDL	NS4b	2262	2271	HLA-B*40:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
180803	VPLLAMGCY	NS4b	2330	2338	HLA-B*35:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
183672	IENTANSLSL	NS4b	2295	2304	HLA-B*40:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
184453	LLLMRTTWAF	NS4b	2420	2429	HLA-A*24:02	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
184713	LVAVATITL	NS4b	2279	2287	HLA-A*24:02	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
186330	VMLLLVHYAI	NS4b	2351	2359	HLA-A*24:02	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	0	1	0	0	0
37535	LLLMRTTWA	NS4b	76	84	HLA-A2	100%	Dengue virus 4	ICS	TNF release	Positive	1	1	1	0	0	0
40472	VMLLLVHYA	NS4b	6	14	HLA-A2	100%	Dengue virus 4	ICS	IFNg release	Positive	1	0	1	0	0	0
1067215	HSWEDIPYL	NS5	3319	3327	HLA-A*02:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
180684	NPRLCITREEF	NS5	2877	2886	HLA-B*07:02	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
180718	REDLWCGSL	NS5	3330	3338	HLA-B*40:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
183353	GESSSNPTI	NS5	2635	2643	HLA-B*44:02	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
183570	HEMYWVSGV	NS5	2703	2711	HLA-B*44:02	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
184051	KLGEFGRK	NS5	2948	2956	HLA-A*03:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
184130	KREDLWCGSL	NS5	3329	3338	HLA-B*08:01	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
184954	MITTEDMLKVV	NS5	3292	3301	HLA class I	100%	Dengue virus 4	ICS	IFNg release	Positive	1	1	1	0	0	0
186453	WEPKSGWKNNW	NS5	3182	3191	HLA-B*44:02	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
186550	YDQENPYRTW	NS5	2781	2790	HLA-B*44:02	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
186640	YYMATLKNV	NS5	2576	2584	HLA-A*24:02	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
186641	YYMATLKNVT	NS5	2576	2585	HLA-A*24:02	100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
539656	MAISGDDCVKPLDERF	NS5	3146	3162	HLA class I	100%	Dengue virus 4	ICS	IFNg release	Positive	1	1	1	0	0	0
539703	MVTQLAMTDTTPFGQOR	NS5	2824	2840	HLA class I	100%	Dengue virus 4	ICS	IFNg release	Positive	1	1	1	0	0	0
180475	GEORKTVEL	NS3	2001	2010	HLA-B*40:01	81% - <100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
183231	FPOSNSPIED	NS3	1799	1808	HLA-B*35:01	81% - <100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
183338	GEIGAVITDF	NS3	1595	1604	HLA-B*44:03	81% - <100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
62616	SVKDREWCF	NS3	389	397	HLA-A24	81% - <100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
180596	LETLMVLALL	NS4a	2144	2153	HLA-B*40:01	81% - <100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
182508	AIAVASGLLLW	NS4a	2179	2188	HLA-B*44:02	81% - <100%	Dengue virus 4	ELISPOT	IFNg release	Positive	0	0	0	0	0	0
183650	IJAVASGLLLW	NS4a	2180	2188	HLA-B*57:01	81% - <100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
42083	MLVALLGAM	NS4a	56	64	HLA-A2	81% - <100%	Dengue virus 4	ICS	IFNg release	Positive	1	1	1	0	0	0
136826	CYSQNPITTL	NS4b	2337	2346	HLA-A*24:02	81% - <100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
150548	RSNAIGAVF	NS5	2891	2900	HLA-B*15:01	81% - <100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
185232	QEHKETWHY	NS5	2772	2781	HLA-B*44:02	81% - <100%	Dengue virus 4	ELISPOT	IFNg release	Positive	1	1	1	0	0	0
539149	DCVWKPLDERFSTSLF	NS5	3152	3168	HLA class I	81% - <100%	Dengue virus 4	ICS	IFNg release	Positive						

Supplementary Table S5. Number of the complete polyprotein sequences of the dengue viral isolates from Thailand, Brazil and Mexico for each of the four dengue serotypes.

Country	DENV-1 sequences	DENV-2 sequences	DENV-3 sequences	DENV-4 sequences	Total Sequences
Thailand	140	13	67	83	303
Brazil	25	35	45	36	141
Mexico	81	20	2	0	103

Supplementary Table S6. Alignment of CD4 and CD8 epitopes in circulating dengue viruses from Thailand and six vaccine candidates. Detailed information, for Thailand, on each of the vaccine carried CD4 and CD8 T cell epitopes that are not present in any of the viral isolates, present in all of the viral isolates, present in only 81% – <100% or 51% – 80% or in only >0% – 50% of viral isolates for each of the epitope within each of the six vaccine candidates and the four dengue serotypes. The first table summarizes information retrieved on circulating viral isolate sequences available from Thailand. Next, the globally reported CD4/CD8 T cell epitopes are organized into: DENV-1 specific CD4 epitopes, DENV-2 specific CD4 epitopes, DENV-3 specific CD4 epitopes, DENV-4 specific CD4 epitopes, DENV-1 specific CD8 epitopes, DENV-2 specific CD8 epitopes, DENV-3 specific CD8 epitopes, DENV-4 specific CD8 epitopes. In each of these tables, identity of the epitope to each of the corresponding viral isolate serotype and each of the vaccine constructs are indicated. Green color shade and number 1 indicates 100% identity in the given virus isolate/vaccine construct. Pink color shade and number zero indicates not identical in the given virus isolate/vaccine construct.

NCBI ID	Strain Name	Host	Date	Continent	Country	Prot_Name	VirusType
QFS19153.1	KDC0587A_06/15/2011	Human	2011-06-14	Asia	Thailand	polyprotein	Dengue virus 1
QFS19173.1	KDC1209A_11/05/2012	Human	2012-11-06	Asia	Thailand	polyprotein	Dengue virus 1
QFS19144.1	KDC0456A_02/07/2011	Human	2011-02-08	Asia	Thailand	polyprotein	Dengue virus 1
QFS19145.1	KDC0492A_04/21/2011	Human	2011-04-21	Asia	Thailand	polyprotein	Dengue virus 1
QFS19146.1	KDC0493A_04/21/2011	Human	2011-04-21	Asia	Thailand	polyprotein	Dengue virus 1
QFS19166.1	KDC0885A_11/29/2011	Human	2011-11-29	Asia	Thailand	polyprotein	Dengue virus 1
QFS19168.1	KDC1149A_10/10/2012	Human	2012-10-10	Asia	Thailand	polyprotein	Dengue virus 1
QFS19190.1	KDH0129A_06/02/2011	Human	2011-06-01	Asia	Thailand	polyprotein	Dengue virus 1
QFS19205.1	KDH0156A_07/21/2011	Human	2011-07-20	Asia	Thailand	polyprotein	Dengue virus 1
QFS19215.1	KDH0176A_08/23/2011	Human	2011-08-22	Asia	Thailand	polyprotein	Dengue virus 1
QFS19222.1	KDH0201A_11/28/2011	Human	2011-11-28	Asia	Thailand	polyprotein	Dengue virus 1
QFS19223.1	KDH0202A_11/29/2011	Human	2011-11-28	Asia	Thailand	polyprotein	Dengue virus 1
QFS19232.1	KDH0288A_09/11/2012	Human	2012-09-10	Asia	Thailand	polyprotein	Dengue virus 1
QFS19235.1	KDH0304A_10/02/2012	Human	2012-10-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92594.1	00750/11	Human	2011-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92758.1	00485/14	Human	2014-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92757.1	01937/06	Human	2006-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92448.1	00690/06	Human	2006-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92560.1	02673/06	Human	2006-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92606.1	00192/13	Human	2013-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92609.1	01616/05	Human	2005-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92611.1	00444/14	Human	2014-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92660.1	01578/05	Human	2005-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92680.1	01274/04	Human	2004-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92723.1	01133/12	Human	2012-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92771.1	02553/06	Human	2006-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92802.1	00817/06	Human	2006-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92829.1	01499/06	Human	2006-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92844.1	01535/06	Human	2006-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92575.1	00559/14	Human	2014-01-01	Asia	Thailand	polyprotein	Dengue virus 1
ANC57582.1	DENV1-384	Human	2009-01-01	Asia	Thailand	polyprotein	Dengue virus 1
AHI88623.1	DENV-1/8/Thailand/01/2013	Human	2013-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92652.1	00878/04	Human	2004-01-01	Asia	Thailand	polyprotein	Dengue virus 1

QTX92811.1	00479/04	Human	2004-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92858.1	02129/06	Human	2006-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92431.1	01302/10	Human	2010-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92434.1	00647/05	Human	2005-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92513.1	00840/12	Human	2012-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92537.1	02723/06	Human	2006-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92551.1	02499/06	Human	2006-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QFS19164.1	KDC0760A_08/10/2011	Human	2011-08-11	Asia	Thailand	polyprotein	Dengue virus 1
QFS19187.1	KDH0102A_02/15/2011	Human	2011-02-11	Asia	Thailand	polyprotein	Dengue virus 1
QFS19199.1	KDH0144A_06/30/2011	Human	2011-06-29	Asia	Thailand	polyprotein	Dengue virus 1
QFS19203.1	KDH0152A_07/13/2011	Human	2011-07-12	Asia	Thailand	polyprotein	Dengue virus 1
QFS19233.1	KDH0289A_09/12/2012	Human	2012-09-11	Asia	Thailand	polyprotein	Dengue virus 1
QFS19237.1	KDH0309A_10/09/2012	Human	2012-10-09	Asia	Thailand	polyprotein	Dengue virus 1
QFS19239.1	KDH0323A_11/26/2012	Human	2012-11-26	Asia	Thailand	polyprotein	Dengue virus 1
QTX92593.1	01381/10	Human	2010-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92599.1	02776/06	Human	2006-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92604.1	00479/05	Human	2005-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92657.1	00258/05	Human	2005-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92662.1	02848/06	Human	2006-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92768.1	02717/06	Human	2006-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92879.1	01710/06	Human	2006-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92881.1	00758/14	Human	2014-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92571.1	00572/14	Human	2014-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QFS19177.1	KDH0032A_07/07/2010	Human	2010-07-07	Asia	Thailand	polyprotein	Dengue virus 1
QTX92679.1	01453/11	Human	2011-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92686.1	00068/06	Human	2006-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92693.1	00432/11	Human	2011-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92726.1	00186/05	Human	2005-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92784.1	02789/06	Human	2006-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92808.1	01006/12	Human	2012-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92812.1	02585/06	Human	2006-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92815.1	02547/06	Human	2006-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92845.1	00208/05	Human	2005-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92847.1	01518/10	Human	2010-01-01	Asia	Thailand	polyprotein	Dengue virus 1

QTX92851.1	01510/10	Human	2010-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92867.1	00738/14	Human	2014-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92429.1	01313/04	Human	2004-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92443.1	00554/14	Human	2014-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92444.1	01040/05	Human	2005-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92486.1	01690/06	Human	2006-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92515.1	00369/04	Human	2004-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92516.1	01479/07	Human	2007-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92531.1	01377/06	Human	2006-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92541.1	02835/06	Human	2006-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92547.1	02725/06	Human	2006-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92557.1	01604/04	Human	2004-01-01	Asia	Thailand	polyprotein	Dengue virus 1
CDF77359.1	KDH0030A	Unknown	2010-01-01	Asia	Thailand	polyprotein	Dengue virus 1
AXS75991.1	Thai2013	Human	2013-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QFS19160.1	KDC0650A_07/06/2011	Human	2011-07-07	Asia	Thailand	polyprotein	Dengue virus 1
QFS19185.1	KDH0087A_12/08/2010	Human	2010-12-07	Asia	Thailand	polyprotein	Dengue virus 1
QFS19207.1	KDH0161A_07/27/2011	Human	2011-07-26	Asia	Thailand	polyprotein	Dengue virus 1
QFS19234.1	KDH0295A_09/19/2012	Human	2012-09-18	Asia	Thailand	polyprotein	Dengue virus 1
QTX92586.1	02340/06	Human	2006-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92753.1	00493/11	Human	2011-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92761.1	02679/06	Human	2006-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92765.1	00841/06	Human	2006-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92445.1	01175/10	Human	2010-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92446.1	00943/12	Human	2012-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92452.1	02548/06	Human	2006-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92457.1	02296/06	Human	2006-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92627.1	00090/13	Human	2013-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92646.1	00002/06	Human	2006-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92655.1	00358/12	Human	2012-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92688.1	00458/06	Human	2006-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92689.1	01277/06	Human	2006-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92701.1	00975/04	Human	2004-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92725.1	01600/10	Human	2010-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92781.1	01651/05	Human	2005-01-01	Asia	Thailand	polyprotein	Dengue virus 1

QTX92800.1	01591/05	Human	2005-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92801.1	00272/11	Human	2011-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92846.1	00330/11	Human	2011-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92418.1	02592/06	Human	2006-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92538.1	00777/12	Human	2012-01-01	Asia	Thailand	polyprotein	Dengue virus 1
ADU03651.1	01096/07	Human	2007-07-27	Asia	Thailand	polyprotein	Dengue virus 1
ANC57592.1	DENV1-18805	Human	2012-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QFS19172.1	KDC1153A_10/10/2012	Human	2012-10-10	Asia	Thailand	polyprotein	Dengue virus 1
QFS19175.1	KDH0026A_06/15/2010	Human	2010-06-15	Asia	Thailand	polyprotein	Dengue virus 1
QTX92861.1	00785/11	Human	2011-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92545.1	01411/04	Human	2004-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92553.1	00211/05	Human	2005-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92559.1	00371/06	Human	2006-01-01	Asia	Thailand	polyprotein	Dengue virus 1
BDB33210.1	Th15-DV1-TM002	Human	2015-01-11	Asia	Thailand	polyprotein	Dengue virus 1
QFS19159.1	KDC0640A2_06/30/2011	Human	2011-07-01	Asia	Thailand	polyprotein	Dengue virus 1
QFS19189.1	KDH0112A_04/21/2011	Human	2011-04-20	Asia	Thailand	polyprotein	Dengue virus 1
QFS19217.1	KDH0182A_09/07/2011	Human	2011-09-05	Asia	Thailand	polyprotein	Dengue virus 1
QFS19226.1	KDH0228A_06/07/2012	Human	2012-06-06	Asia	Thailand	polyprotein	Dengue virus 1
QPQ49765.1	P3.1 Thailand 2005	Human	2005-01-11	Asia	Thailand	polyprotein	Dengue virus 1
QTX92595.1	01530/06	Human	2006-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92612.1	00259/04	Human	2004-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92670.1	00349/11	Human	2011-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92745.1	00674/06	Human	2006-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92454.1	02344/06	Human	2006-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92462.1	00878/12	Human	2012-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92576.1	00438/06	Human	2006-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92577.1	02584/06	Human	2006-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QFS19151.1	KDC0575A_06/02/2011	Human	2011-06-03	Asia	Thailand	polyprotein	Dengue virus 1
QTX92707.1	00059/13	Human	2013-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92713.1	02634/06	Human	2006-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92716.1	00543/12	Human	2012-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92718.1	00743/05	Human	2005-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92724.1	00369/06	Human	2006-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92857.1	01302/11	Human	2011-01-01	Asia	Thailand	polyprotein	Dengue virus 1

QTX92428.1	00343/13	Human	2013-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QTX92489.1	01152/13	Human	2013-01-01	Asia	Thailand	polyprotein	Dengue virus 1
ANC57585.1	DENV1-2878	Human	2008-01-01	Asia	Thailand	polyprotein	Dengue virus 1
ANC57583.1	DENV1-1990	Human	2008-01-01	Asia	Thailand	polyprotein	Dengue virus 1
QFS19155.1	KDC0599A_06/21/2011	Human	2011-06-21	Asia	Thailand	polyprotein	Dengue virus 1
ANC57599.1	DENV2-3229	Human	2011-01-01	Asia	Thailand	polyprotein	Dengue virus 2
QXY23100.1	DV2C-TM19-26	Human	2019-11-24	Asia	Thailand	polyprotein	Dengue virus 2
QXY23099.1	DV2A-TM19-13	Human	2019-11-19	Asia	Thailand	polyprotein	Dengue virus 2
BBG31508.1	Th16-026DV2	Human	2016-01-10	Asia	Thailand	polyprotein	Dengue virus 2
QBK46950.1	16681-2007	Unknown	2007-01-06	Asia	Thailand	polyprotein	Dengue virus 2
ANC57598.1	DENV2-1365	Human	2009-01-01	Asia	Thailand	polyprotein	Dengue virus 2
BBG31503.1	Th16-035DV2	Human	2016-01-11	Asia	Thailand	polyprotein	Dengue virus 2
BBG31505.1	Th17-061DV2	Human	2017-01-01	Asia	Thailand	polyprotein	Dengue virus 2
QFS19150.1	KDC0574A2_06/02/2011	Human	2011-06-04	Asia	Thailand	polyprotein	Dengue virus 2
QBA29681.1	CNR_25326	Human	2014-08-15	Asia	Thailand	polyprotein	Dengue virus 2
QXY23103.1	DV2C-TM19-80	Human	2019-12-30	Asia	Thailand	polyprotein	Dengue virus 2
BBG31506.1	Th17-074DV2	Human	2017-01-02	Asia	Thailand	polyprotein	Dengue virus 2
BBG31507.1	Th16-011DV2	Human	2016-01-10	Asia	Thailand	polyprotein	Dengue virus 2
BBG31513.1	Th17-059DV3	Human	2017-01-01	Asia	Thailand	polyprotein	Dengue virus 3
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QTX93295.1	02185/06	Human	2006-01-01	Asia	Thailand	polyprotein	Dengue virus 3
QTX93456.1	01530/05	Human	2005-01-01	Asia	Thailand	polyprotein	Dengue virus 3
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QTX93578.1	01536/06	Human	2006-01-01	Asia	Thailand	polyprotein	Dengue virus 3
QTX93347.1	01131/12	Human	2012-01-01	Asia	Thailand	polyprotein	Dengue virus 3
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QTX93435.1	01385/10	Human	2010-01-01	Asia	Thailand	polyprotein	Dengue virus 3

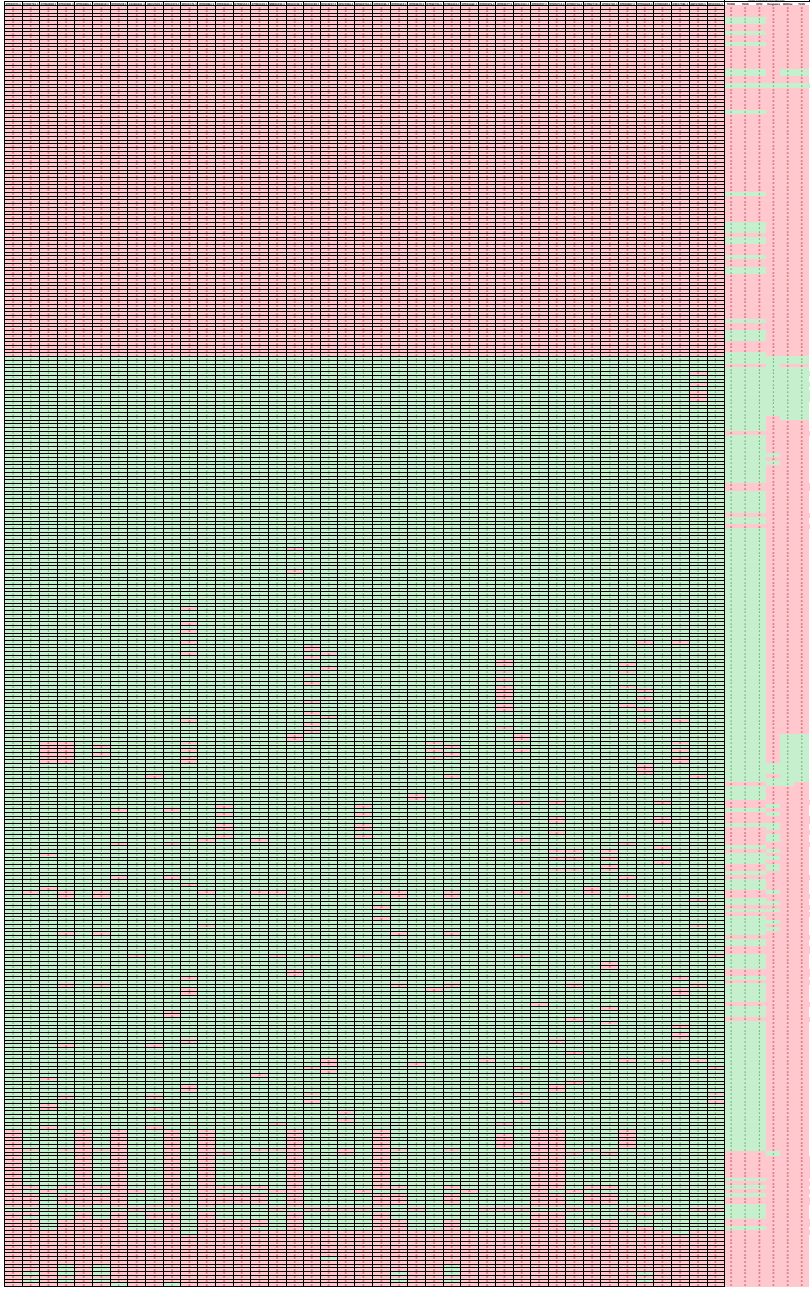
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QTX93547.1	01651/06	Human	2006-01-01	Asia	Thailand	polyprotein	Dengue virus 3
ANC57606.1	DENV3-1631	Human	2011-01-01	Asia	Thailand	polyprotein	Dengue virus 3
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QTX93442.1	02678/06	Human	2006-01-01	Asia	Thailand	polyprotein	Dengue virus 3
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QTX93499.1	00507/14	Human	2014-01-01	Asia	Thailand	polyprotein	Dengue virus 3
QTX93408.1	00872/05	Human	2005-01-01	Asia	Thailand	polyprotein	Dengue virus 3
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AMA21734.1	Pythium	Parasitic Oomycote	2014-08-28	Asia	Thailand	polyprotein	Dengue virus 3
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QTX92178.1	00567/04	Human	2004-01-01	Asia	Thailand	polyprotein	Dengue virus 4
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QTX92357.1	01719/04	Human	2004-01-01	Asia	Thailand	polyprotein	Dengue virus 4

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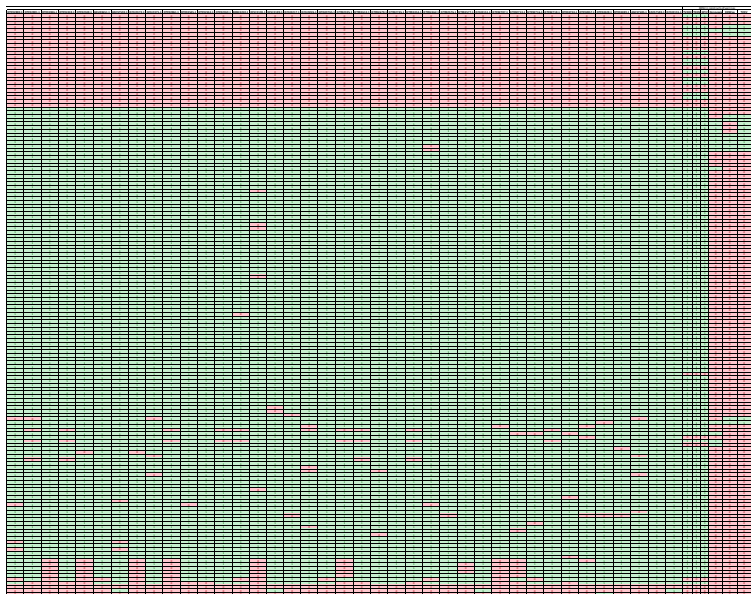
539233	EMLRTRVGTGTHALL	N52a	1148	1162	HLA-DRB1*08:03	81%-<100%	Dengue virus 2	ELISPOT	IFNg release	Positive		1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1	0
539540	LALLAAKVRPTFAA	N52a	1202	1216	HLA-DRB1*14:04	81%-<100%	Dengue virus 2	ELISPOT	IFNg release	Positive		1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1	0
539562	LGMMLVKVRNMEKY	N52a	1256	1270	HLA-DRB1*12:02	81%-<100%	Dengue virus 2	ELISPOT	IFNg release	Positive		1	1	1	1	1	1	0	1	1	1	1	0	0	0	0	0	0
539686	MMVLXKVRNMEKQL	N52a	1264	1258	HLA-DRB1*14:06	81%-<100%	Dengue virus 2	ELISPOT	IFNg release	Positive		1	1	1	1	1	0	1	1	1	1	1	0	0	0	0	0	0
540026	VAVSVPLTIGMMSF	N52a	1163	1177	HLA-DRB1*10:01	81%-<100%	Dengue virus 2	ELISPOT	IFNg release	Positive		1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1	0
540047	VTLLAAKVRPT	N52a	1199	1213	HLA-DRB1*12:02	81%-<100%	Dengue virus 2	ELISPOT	IFNg release	Positive		1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1	0
540154	YUALLAAFRPTFTA	N52a	1201	1215	HLA-DRB1*14:04	81%-<100%	Dengue virus 2	ELISPOT	IFNg release	Positive		1	1	1	1	1	1	0	1	1	1	1	0	1	1	1	0	1
740700	VVSVPSSLTSQQQ	N52a	1188	1202	HLA-DRB1*01:02	81%-<100%	Dengue virus 2	ELISPOT	IFNg release	Positive		1	1	1	1	1	1	1	0	1	1	1	0	1	0	0	1	0
866978	GMALEELMRTRVG	N52a	1141	1155	HLA-DQA1*01:01/DOBI*05:01	81%-<100%	Dengue virus 2	ELISPOT	IFNg release	Positive		1	1	1	1	1	1	1	0	1	1	1	0	1	1	0	1	0
868918	SLOGLGMALEELMR	N52a	1136	1150	HLA-DQA1*05:01/DOBI*02:01	81%-<100%	Dengue virus 2	ELISPOT	IFNg release	Positive		1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1
869209	TLHALLVAUSPRL	N52a	1156	1170	HLA-DPB1*04:01	81%-<100%	Dengue virus 2	ELISPOT	IFNg release	Positive		1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1
195210	EICQTILRLLGV	N52b	11	105	HLA-B*11:01	81%-<100%	Dengue virus 2	ELISPOT	IFNg release	Positive		1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1
195723	LTILIRTLVLSGL	N52b	1440	1454	HLA-DRB1*15:06	81%-<100%	Dengue virus 2	ELISPOT	IFNg release	Positive		1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1
195869	QTLIURLTLGLVIS	N52b	1438	1452	HLA-DRB1*15:01	81%-<100%	Dengue virus 2	ELISPOT	IFNg release	Positive		1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1
1067121	BKKVGLVNGVWTRS	N53	1619	1633	HLA-DRB1*15:01	81%-<100%	Dengue virus 2	ELISPOT	IFNg release	Positive		1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1
123272	HETGRIVOLMHCHAT	N53	250	264	HLA class II	81%-<100%	Dengue virus 2	ELISPOT	IFNg release	Positive		1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1
1392187M	GNVSKVLSCHMTAPIS	N53	1728	1742			Dengue virus 2	biosocial activity	activation	Positive		1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1
139756	GKTORLYPAIVEARI	N53	1673	1687	HLA-DRB1*09:01	81%-<100%	Dengue virus 2	ELISPOT	IFNg release	Positive		1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1
139762	GLPIRYQTPAIRAEH	N53	1712	1726	HLA-DRB1*04:03	81%-<100%	Dengue virus 2	ELISPOT	IFNg release	Positive		1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1
180698	PNYLIIMDEAHTD	N53	1751	1765	HLA class II	81%-<100%	Dengue virus 2	ELISPOT	IFNg release	Positive		1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1
180807	VTDFKGVTVVFPVSI	N53	1826	1840	HLA class II	81%-<100%	Dengue virus 2	ELISPOT	IFNg release	Positive-Low		1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1
195154	ALRGPIRYQTPAIR	N53	1709	1723	HLA-DRB1*08:02	81%-<100%	Dengue virus 2	ELISPOT	IFNg release	Positive		1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1
195194	FHTMMVTRGALVHM	N53	1521	1535	HLA-DRB1*07:01	81%-<100%	Dengue virus 2	ELISPOT	IFNg release	Positive		1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1
195420	GTHTMVHMVIRGVAL	N53	1519	1533	HLA-DRB1*07:01	81%-<100%	Dengue virus 2	ELISPOT	IFNg release	Positive		1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1
195564	KGKVLVNGVNGVTR	N53	1618	1632	HLA-DRB1*15:01	81%-<100%	Dengue virus 2	ELISPOT	IFNg release	Positive		1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1
195888	RGLRTLILAPTRVVA	N53	1689	1703	HLA-DRB1*08:02	81%-<100%	Dengue virus 2	ELISPOT	IFNg release	Positive		1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1
21115	GLRTLILAPTRVVA	N53	1690	1704	HLA-DRB1*04:03	81%-<100%	Dengue virus 2	ELISPOT	IFNg release	Positive		1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1
26965	ILAPTRVVAEMEA	N53	1695	1709	HLA-DQA1*03:01/DOBI*03:02	81%-<100%	Dengue virus 2	ELISPOT	IFNg release	Positive		1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1
30236	KEGGLVIRPWLDA	N53	584	598	HLA class II	81%-<100%	Dengue virus 2	ELISPOT	IFNg release	Positive		1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1
31725	KVQVLSKRTSDYES	N53	1855	1869	HLA-DRB1*12:02	81%-<100%	Dengue virus 2	ELISPOT	IFNg release	Positive		1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1
34231	KVVLGVNGVWTRSG	N53	145	159	HLA class II	81%-<100%	Dengue virus 2	ELISPOT	IFNg release	Positive		1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1
36560	LIMIDEAHTDPAISI	N53	1755	1769	HLA-DQA1*01:01/DOBI*05:01	81%-<100%	Dengue virus 2	ELISPOT	IFNg release	Positive		1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1
39103	HLGPIRYQTPAIRA	N53	1696	1710	HLA-DRB1*12:02	81%-<100%	Dengue virus 2	ELISPOT	IFNg release	Positive		1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1
39125	LNTLIRTRVVAE	N53	1691	1705	HLA-DRB1*12:02	81%-<100%	Dengue virus 2	ELISPOT	IFNg release	Positive		1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1
4152	ABGYSTRVMEALGA	N53	1757	1771	HLA-DRB1*04:07	81%-<100%	Dengue virus 2	ELISPOT	IFNg release	Positive		1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1
49766	PTRVVAEMEAELG	N53	223	237	HLA-DRB1*15:01	81%-<100%	Dengue virus 2	ICS	IFNg release	Positive		1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1
539025	AAGIFMTATPGSRD	N53	1784	1798	HLA-DRB1*04:03	81%-<100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1
539041	AEMEALRGLPIRYQ	N53	1704	1718	HLA-DRB1*13:01	81%-<100%	Dengue virus 2	ELISPOT	IFNg release	Positive		1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1
539203	EEBVLVPMFPMVHS	N53	1899	1913	HLA-DRB1*09:01	81%-<100%	Dengue virus 2	ELISPOT	IFNg release	Positive		1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1
539267M	GEAAQSNKATPPGS	N53	1782	1796	HLA-DRB1*04:03	81%-<100%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1
539448	IVREAKIRGLTULI	N53	1682	1696	HLA-DRB1*12:02	81%-<100%	Dengue virus 2	ELISPOT	IFNg release	Positive		1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1
539467	KGKTVVFPVPSKAGN	N53	1830	1844	HLA-DRB1*08:03	81%-<100%	Dengue virus 2	ELISPOT	IFNg release	Positive		1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1
539573	LILAPTRVVAEMEA	N53	1694	1708	HLA-DRB1*13:01	81%-<100%	Dengue virus 2	ELISPOT	IFNg release	Positive		1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1
539713	NGKVLQVLSKRTDS	N53	1853	1867	HLA-DRB1*12:02	81%-<100%	Dengue virus 2	ELISPOT	IFNg release	Positive		1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1
539859	RGLPIRYQTPAIRAE	N53	1711	1725	HLA-DRB1*13:01	81%-<100%	Dengue virus 2	ELISPOT	IFNg release	Positive		1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1
539871	RGLPIRYQTPAIRAE	N53	1711	1725	HLA-DRB1*13:01	81%-<100%	Dengue virus 2	ELISPOT	IFNg release	Positive		1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1
539872	RGLPIRYQTPAIRAE	N53	1711	1725	HLA-DRB1*13:01	81%-<100%	Dengue virus 2	ELISPOT	IFNg release	Positive		1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1
540056	BLMHKGGKREPSPAD	N53	1518	1532	HLA-DRB1*13:01	81%-<100%	Dengue virus 2	ELISPOT	IFNg release	Positive		1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1
61672	FHTMMVHVTYRGVLM	N53	45	59	HLA class II	81%-<100%	Dengue virus 2	ELISPOT	IFNg release	Positive		1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1
64466	TKRYLPAVREAKR	N53	200	214	HLA class II	81%-<100%	Dengue virus 2	ELISPOT	IFNg release	Positive		1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1
740081	REAKIRGLTULILAP	N53	1670	1684	HLA-DRB1*14:06	81%-<100%	Dengue virus 2	ELISPOT	IFNg release	Positive		1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1
740193	RTLILAPTRVVAEM	N53	1678	1692	HLA-DRB1*14:06	81%-<100%	Dengue virus 2	ELISPOT	IFNg release	Positive		1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1
866724	EALRGLPIRYQTPA	N53	1708	1722	HLA-B*01:01	81%-<100%	Dengue virus 2	ELISPOT	IFNg release	Positive		1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1
868724	RTHNDWFPVTTDISE	N53	1873	1887	HLA-DQA1*03:01/DOBI*03:02	81%-<100%	Dengue virus 2	ELISPOT	IFNg release	Positive		1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1
868734	RYLPAVREAKIRGL	N53	1677	1691	HLA-DRB4*01:01	81%-<100%	Dengue virus 2	ELISPOT	IFNg release	Positive		1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1
869224	TULAPTRVVAEMEA	N53	1693	1707	HLA-DQA1*01:02/DOBI*06:02	81%-<100%	Dengue virus 2	ELISPOT	IFNg release	Positive		1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1
8911	DKKGVGLVNGVGVV																											

869426	VEWEEIPLGKRED	NS5	3321	3335	HLA-DQA1*01:01/DOB1*05:01	81%- <100%	Dengue virus 2	ELISPOT	IFN-g release	Positive	1	1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1	0
150105	AFRLRLTIPTTAGT	C	52	66	HLA-DRB1*01:01	51%-80%	Dengue virus 2	ELISPOT	IFN-g release	Positive	0	1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1	0
150247	GMIMILPIVMAFHIL	C	103	117	HLA-DRB1*01:01	51%-80%	Dengue virus 2	ELISPOT	IFN-g release	Positive	1	0	1	1	0	1	1	1	0	1	0	1	1	0	1	1	0	1	0
150597	LFMALVAIRLRTITP	C	46	60	HLA class II	51%-80%	Dengue virus 2	ELISPOT	IFN-g release	Positive	0	1	1	1	1	1	1	1	0	1	0	1	1	0	1	1	1	0	0
195120	AGMIMLPIVMAFH	C	102	116	HLA-DRB1*08:02	51%-80%	Dengue virus 2	ELISPOT	IFN-g release	Positive	1	0	1	0	1	0	1	1	0	1	0	1	1	0	1	1	0	1	0
195307	FMALVAFRLFTIPT	C	47	61	HLA-DRB1*11:01	51%-80%	Dengue virus 2	ELISPOT	IFN-g release	Positive	0	1	1	1	1	1	1	1	0	1	0	1	1	1	1	0	1	0	0
195496	IIMLPIVMAFHILT	C	105	119	HLA-DRB1*01:02	51%-80%	Dengue virus 2	ELISPOT	IFN-g release	Positive	1	0	1	1	0	1	0	1	1	0	1	0	1	0	1	1	0	1	0
195730	LVAFRLFTIPTTAG	C	50	64	HLA-DRB1*04:01	51%-80%	Dengue virus 2	ELISPOT	IFN-g release	Positive	0	1	1	1	1	1	1	1	0	1	0	1	1	0	1	1	0	1	0
195741	MAVAIRLRTIPTT	C	48	62	HLA-DRB1*01:01	51%-80%	Dengue virus 2	ELISPOT	IFN-g release	Positive	0	1	1	1	1	1	1	1	0	1	0	1	1	1	0	1	0	1	0
196091	VAFRLFTIPTTAGI	C	51	65	HLA-DRB1*04:01	51%-80%	Dengue virus 2	ELISPOT	IFN-g release	Positive	1	0	1	1	1	1	1	1	0	1	0	1	1	1	0	1	0	1	0
530981	ALVAFRLTIPTTA	C	49	63	HLA-DRB1*12:02	51%-80%	Dengue virus 2	ELISPOT	IFN-g release	Positive	0	1	1	1	1	1	1	1	0	1	0	1	1	0	1	1	0	1	0
150490	PGFTIMAILAYTIG	PreM	245	259	HLA-DRB1*01:01	51%-80%	Dengue virus 2	ELISPOT	IFN-g release	Positive	1	1	1	1	1	0	1	1	0	0	1	1	1	1	1	1	0	1	0
195322	FORVLILLTAVAP	PreM	263	277	HLA-DRB1*07:01	51%-80%	Dengue virus 2	ELISPOT	IFN-g release	Positive	1	1	1	1	1	0	1	1	1	1	1	1	1	0	0	0	0	0	0
195702	LHRPGFTIMAILAY	PreM	242	256	HLA-DRB1*11:01	51%-80%	Dengue virus 2	ELISPOT	IFN-g release	Positive	1	1	1	1	1	0	1	1	1	0	1	1	1	1	1	1	0	1	0
195461	QRVLVILLTAVAP	PreM	264	278	HLA-DRB1*08:02	51%-80%	Dengue virus 2	ELISPOT	IFN-g release	Positive	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	0	0	0
195892	RIFTWLIRHPGFTIM	PreM	122	136	HLA-DRB1*15:01	51%-80%	Dengue virus 2	ELISPOT	IFN-g release	Positive	1	0	1	0	0	0	1	1	1	0	1	1	1	0	0	0	0	0	0
180590	LDPELKEAKOPAT	E	41	55	HLA class II	51%-80%	Dengue virus 2	ELISPOT	IFN-g release	Positive	1	0	1	0	1	0	1	1	1	0	0	1	1	0	1	1	1	1	1
195952	SGVSWTMKILGVIE	E	449	463	HLA-DRB1*15:01	51%-80%	Dengue virus 2	ELISPOT	IFN-g release	Positive	1	0	1	0	1	0	1	1	0	1	0	1	0	1	0	1	1	0	0
196022	SWTMKILGVITVIT	E	452	466	HLA-DRB1*08:02	51%-80%	Dengue virus 2	ELISPOT	IFN-g release	Positive	1	0	1	0	1	0	1	1	1	0	1	0	1	0	1	0	1	1	0
180603	LYSWGTWTKGAKMNS	NS1	111	125	HLA class II	51%-80%	Dengue virus 2	ELISPOT	IFN-g release	Positive	1	0	1	0	1	0	1	1	0	1	0	1	0	1	1	0	1	0	0
195207	CTLAVVSPISLLT	NS2a	1144	1158	HLA-DRB1*07:01	51%-80%	Dengue virus 2	ELISPOT	IFN-g release	Positive	1	0	1	0	1	0	1	1	1	0	0	1	1	0	0	1	0	1	0
195650	LKVIRNMEKYQLAVT	NS2a	1261	1275	HLA-DRB1*13:01	51%-80%	Dengue virus 2	ELISPOT	IFN-g release	Positive	1	1	0	1	0	1	1	1	0	1	1	1	1	0	0	0	0	0	0
195752	MEKYQLAVTIMALC	NS2a	1154	1168	HLA-DRB1*04:07	51%-80%	Dengue virus 2	ELISPOT	IFN-g release	Positive	1	1	0	1	1	1	1	1	0	1	1	1	1	0	1	0	1	0	0
195798	NMEKYQLAVTIMAL	NS2a	1266	1280	HLA-DRB1*04:01	51%-80%	Dengue virus 2	ELISPOT	IFN-g release	Positive	1	1	0	1	1	1	0	1	0	1	1	1	1	0	1	0	1	0	0
196174	VRNMEKYQLAVTIMA	NS2a	1264	1278	HLA-DRB1*13:01	51%-80%	Dengue virus 2	ELISPOT	IFN-g release	Positive	1	1	0	1	1	1	0	1	0	1	1	1	1	0	1	0	1	0	0
196218	WVWSCTLVAVSVSP	NS2a	1292	1306	HLA-DRB1*04:01	51%-80%	Dengue virus 2	ELISPOT	IFN-g release	Positive	1	0	1	0	1	0	1	1	0	1	0	1	1	0	1	0	1	0	0
530474	KVRNMEKYQLAVT	NS2a	1252	1276	HLA-DRB1*13:01	51%-80%	Dengue virus 2	ELISPOT	IFN-g release	Positive	1	0	1	0	1	0	1	1	0	1	0	1	1	0	1	0	1	0	0
867216	ILCPVNAVILQNAWK	NS2a	1279	1293	HLA-DQA1*01:02/DOB1*06:02	51%-80%	Dengue virus 2	ELISPOT	IFN-g release	Positive	0	1	0	1	1	0	1	1	0	0	1	1	1	0	1	1	0	1	0
867571	LCVPNAVILQNAWK	NS2a	1280	1294	HLA-DRB4*01:01	51%-80%	Dengue virus 2	ELISPOT	IFN-g release	Positive	0	1	0	1	1	0	1	1	0	0	1	1	0	1	1	0	1	0	0
150433	MAVGMSVILASSLLK	NS2b	1354	1368	HLA-DRB1*01:01	51%-80%	Dengue virus 2	ELISPOT	IFN-g release	Positive	1	0	1	0	1	1	1	1	0	1	0	1	0	1	0	1	0	1	0
167732	DOAESGSSPLSTISEDG	NS2b	63	82	HLA-DP	51%-80%	Dengue virus 2	ELISPOT	IFN-g release	Positive	1	0	1	0	1	0	1	1	0	1	0	1	0	1	0	1	0	1	0
195512	IMAVIRLTKGAKMNS	NS2b	8	22	HLA-DRB1*07:01	51%-80%	Dengue virus 2	ELISPOT	IFN-g release	Positive	1	0	1	0	1	0	1	1	0	1	0	1	0	1	0	1	0	1	0
195992	SKLLKNDIPMTGPLV	NS2b	19	33	HLA-DRB1*03:01	51%-80%	Dengue virus 2	ELISPOT	IFN-g release	Positive	1	0	1	0	1	0	1	1	1	0	1	1	1	0	1	0	1	0	0
866896	GMVSLASSLLKNDI	NS2b	1357	1371	HLA-DPB1*01:01	51%-80%	Dengue virus 2	ELISPOT	IFN-g release	Positive	1	0	1	0	1	1	1	1	1	0	1	0	1	1	0	1	1	0	0
195765	MRLSLSPVRPVNLYI	NS3	1742	1756	HLA-DRB1*13:01	51%-80%	Dengue virus 2	ELISPOT	IFN-g release	Positive	1	0	1	0	1	0	1	1	0	1	0	1	0	1	0	1	0	1	0
739148	IDKKGKVGVLGVNGV	NS3	1615	1629	HLA-DRB1*01:02	51%-80%	Dengue virus 2	ELISPOT	IFN-g release	Positive	1	0	1	0	1	0	1	1	1	0	1	0	1	1	0	1	0	1	0
195935	LGMCCTIASILLWY	NS4a	2176	2190	HLA-DRB1*07:01	51%-80%	Dengue virus 2	ELISPOT	IFN-g release	Positive	1	0	1	0	1	1	1	1	1	0	1	0	1	1	0	1	0	1	0
195267	MTLGMCCTIASILL	NS4a	2160	2174	HLA-DRB1*07:01	51%-80%	Dengue virus 2	ELISPOT	IFN-g release	Positive	1	0	1	0	1	1	1	1	0	1	0	1	1	0	1	0	1	0	0
150611	TAALLLVVHAHYAIG	NS4b	2351	2365	HLA-DRB1*01:01	51%-80%	Dengue virus 2	ELISPOT	IFN-g release	Positive	0	1	1	1	1	0	1	1	1	0	0	1	1	1	1	0	0	0	0
150636	TLTAALLLVVHAHYA	NS4b	2335	2349	HLA-DRB1*01:01	51%-80%	Dengue virus 2	ELISPOT	IFN-g release	Positive	0	1	1	1	1	0	1	1	1	0	0	1	1	1	0	1	0	0	0
195115	AGAGLLFSIMKNTNT	NS4b	2474	2488	HLA-DRB1*11:01	51%-80%	Dengue virus 2	ELISPOT	IFN-g release	Positive	1	0	1	0	1	0	1	0	1	0	1	1	0	1	0	1	0	1	0
195347	GAGLLFSIMKNTNTT	NS4b	2475	2489	HLA-DRB1*11:01	51%-80%	Dengue virus 2	ELISPOT	IFN-g release	Positive	1	0	1	0	1	0	1	1	0	1	0	1	0	1	0	1	0	1	0
195629	LFSSIMKNTNTRGT	NS4b	2479	2493	HLA-DRB1*03:01	51%-80%	Dengue virus 2	ELISPOT	IFN-g release	Positive	1	0	1	0	1	0	1	1	1	0	1	0	1	0	1	0	1	0	0
195658	LFSSIMKNTNTRBG	NS4b	2478	2492	HLA-DRB1*04:01	51%-80%	Dengue virus 2	ELISPOT	IFN-g release	Positive	1	0	1	0	1	0	1	1	1	0	1	0	1	0	1	0	1	0	0
195980	SGVNPITLTAALLL	NS4b	2343	2357	HLA-DQA1*01:02/DOB1*06:02	51%-80%	Dengue virus 2	ELISPOT	IFN-g release	Positive	0	1	1	1	1	0	1	1	1	0	0	1	1	1	0	0	0	0	0
539327	GLLFSIMKNTNTRR	NS4b	2477	2491	HLA-DRB1*14:02	51%-80%	Dengue virus 2	ELISPOT	IFN-g release	Positive	1	0	1	0	1	0	1	1	1	0	1	0	1	0	1	0	1	0	0
539755	PASAWTLVAVATFV	NS4b	2277	2291	HLA-DRB1*09:01	51%-80%	Dengue virus 2	ELISPOT	IFN-g release	Positive	1	0	1	0	1	0	1	1	0	1	0	1	0	1	0	1	0	1	0
180582	KTWAVHGSYETQIG	NS5	2792	2806	HLA class II	51%-80%	Dengue virus 2	ICS	IFN-g release	Positive	0	1	0	1	1	1	1	0	1	0	1	0	1	0	1	0	1	0	0
195442	LHGLKIDYQKSKKE	NS5	3003	3017	HLA-DRB1*08:02	51%-80%	Dengue virus 2	ELISPOT	IFN-g release	Positive	1	0	1	0	1	1	1	1	0	1	0	1	1	1	0	1	0	1	0
539195	EAKFLTYQNKVVRVY	NS5	3057	3071	HLA-DRB1*01:01	51%-80%	Dengue virus 2	ELISPOT	IFN-g release	Positive	1	0	1	0	1	0	1	1	1	0	1	0	1	1	0	1	0	1	0
539348	GSALKRWFVERNMVY	NS5	2549	2563	HLA-DRB1*09:01	51%-80%	Dengue virus 2	ELISPOT	IFN-g release	Positive	1	0	1	0	1	0	1	1	1	0	1	0	1	0	1	0	1	0	0
739166	IFKLYQNKVVRVQR	NS5	3045	3059	HLA-DRB1*14:06	51%-80%	Dengue virus 2	ELISPOT	IFN-g release	Positive	1	0	1	0	1	0	1	1	1	0	1	0	1	0	1	0	1	0	0
865656	EHKKLAFAFLTYQK	NS5	3051	3065	HLA-DPB1*01:01	51%-80%	Dengue virus 2	ELISPOT	IFN-g release	Positive	1	0	1	0	1	1	1	1	1	0	1	0	1	1	0	1	0	1	0
867419	KKLAFAFLTYQNK	NS5	3053	3067	HLA-DPB1*02:01	51%-80%	Dengue virus 2	ELISPOT	IFN-g release	Positive	1	0	1	0	1	1	1	1	1	0	1	0	1	1	0	1	0	1	0
867433	KLASAFKLYQNKV	C	3054	3068	HLA-DPB1*02:01	51%-80%	Dengue virus 2	ELISPOT	IFN-g release	Positive	1	0	1	0	1	1	1	1	1	0	1	0	1	1	0	1			

539150	DDRFASALTALNDMG	NSS	3162	3176	HLA-DRB1*04:03	>0% - 50%	Denguevirus 2	ELISPOT	IFN γ release	Positive	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
540064	VNGVRLLTKPWdVI	NSS	2812	2826	HLA-DRB1*12:02	>0% - 50%	Denguevirus 2	ELISPOT	IFN γ release	Positive	0	1	0	1	0	0	0	1	0	0	0	1	0	0	0	0	1	0	1	0
540065	VNGVRLLTKPWdVv	NSS	2812	2826	HLA-DRB1*12:02	>0% - 50%	Denguevirus 2	ELISPOT	IFN γ release	Positive	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0
739791	NLVRLQSGVDVFFTP	NSS	2599	2613	HLA-DRB1*01:02	>0% - 50%	Dengue virus 2	ELISPOT	IFN γ release	Positive	0	1	0	1	0	1	0	0	0	0	0	1	0	0	1	0	0	1	0	0

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	525	526	527	528	529	530	531	532	533	534	535	536	537	538	539	540	541	542	543	544	545	546	547	548	549	550	551	552	553	554	555	556	557	558	559	560	561	562	563	564	565	566	567	568	569	570	571	572	573	574	575	576	577	578	579	580	581	582	583	584	585	586	587	588	589	590	591	592	593	594	595	596	597	598	599	600	601	602	603	604	605	606	607	608	609	610	611	612	613	614	615	616	617	618	619	620	621	622	623	624	625	626	627	628	629	630	631	632	633	634	635	636	637	638	639	640	641	642	643	644	645	646	647	648	649	650	651	652	653	654	655	656	657	658	659	660	661	662	663	664	665	666	667	668	669	670	671	672	673	674	675	676	677	678	679	680	681	682	683	684	685	686	687	688	689	690	691	692	693	694	695	696	697	698	699	700	701	702	703	704	705	706	707	708	709	710	711	712	713	714	715	716	717	718	719	720	721	722	723	724	725	726	727	728	729	730	731	732	733	734	735	736	737	738	739	740	741	742	743	744	745	746	747	748	749	750	751	752	753	754	755	756	757	758	759	760	761	762	763	764	765	766	767	768	769	770	771	772	773	774	775	776	777	778	779	780	781	782	783	784	785	786	787	788	789	790	791	792	793	794	795	796	797	798	799	800	801	802	803	804	805	806	807	808	809	810	811	812	813	814	815	816	817	818	819	820	821	822	823	824	825	826	827	828	829	830	831	832	833	834	835	836	837	838	839	840	841	842	843	844	845	846	847	848	849	850	851	852	853	854	855	856	857	858	859	860	861	862	863	864	865	866	867	868	869	870	871	872	873	874	875	876	877	878	879	880	881	882	883	884	885	886	887	888	889	890	891	892	893	894	895	896	897	898	899	900	901	902	903	904	905	906	907	908	909	910	911	912	913	914	915	916	917	918	919	920	921	922	923	924	925	926	927	928	929	930	931	932	933	934	935	936	937	938	939	940	941	942	943	944	945	946	947	948	949	950	951	952	953	954	955	956	957	958	959	960	961	962	963	964	965	966	967	968	969	970	971	972	973	974	975	976	977	978	979	980	981	982	983	984	985	986	987	988	989	990	991	992	993	994	995	996	997	998	999	1000
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A large grid of colored squares, primarily green and red, with some yellow and orange squares. The grid is composed of many small squares, each representing a data point. The colors are distributed across the grid, with a higher concentration of red squares in the upper right and lower right areas, and a higher concentration of green squares in the upper left and lower left areas. The overall pattern suggests a spatial distribution of data, possibly representing a city grid or a map of a region.



CD8 DENV-2 Epitopes

											NCBI IDs of DENV-2 circulating strains from Thailand. (100% identity in green; else, 0, red)										DENV-2 constructs of vaccines								
ID	AA_Seq	Protein_Name	Start	End	Allele	step	Serotype	Method/Technique	Assay_Group	Qualitative_Measure	ANCS7599.1	QXY23100.1	QXY23099.1	BG631508.1	QBK46950.1	ANCS7598.1	BG631503.1	BG631505.1	QF519150.1	Q8A29681.1	QXY23103.1	BG631506.1	BG631507.1	TV003	TDEn	DPV	Dengvaxia	DENVax	TVDV
185104	NRRRRTAGP	C	96	104	HLA-B*08:01	0%	Dengue virus 2	ELISPOT	IFN-g release	Positive		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
185399	RKARSTPF	C	5	13	HLA-B*08:01	0%	Dengue virus 2	ELISPOT	IFN-g release	Positive																			
186264	VGRQEKGSLS	PreM	128	137	HLA-B*08:01	0%	Dengue virus 2	ELISPOT	IFN-g release	Positive																			
184300	LATLRKCY	C	53	61	HLA-B*08:01	0%	Dengue virus 2	ELISPOT	IFN-g release	Positive																			
184467	LQMEDKAWL	E	478	487	HLA-B*08:01	0%	Dengue virus 2	ELISPOT	IFN-g release	Positive																			
150448	MMATIGIAL	NS2a	1229	1237	HLA-B*35:01	0%	Dengue virus 2	ELISPOT	IFN-g release	Positive																			
150449	MMATIGIAL	NS2a	1229	1238	HLA-A*02:01	0%	Dengue virus 2	ELISPOT	IFN-g release	Positive																			
182687	AYRIKGRGIL	NS3	1497	1506	HLA-B*08:01	0%	Dengue virus 2	ELISPOT	IFN-g release	Positive																			
182892	EENMEVEIV	NS3	2049	2057	HLA-B*44:02	0%	Dengue virus 2	ELISPOT	IFN-g release	Positive																			
184318	LEEMMEVEIV	NS3	2048	2057	HLA-B*44:02	0%	Dengue virus 2	ELISPOT	IFN-g release	Positive																			
186211	VGRQVYVNSL	NS3	1615	1624	HLA-B*08:01	0%	Dengue virus 2	ELISPOT	IFN-g release	Positive																			
186301	VLMMRGKRI	NS3	1532	1540	HLA-B*08:01	0%	Dengue virus 2	ELISPOT	IFN-g release	Positive																			
22816	GTSGSPIADK	NS3	1608	1617	HLA-A*11:01	0%	Dengue virus 2	multimer/tetramer	qualitative binding	Positive																			
22817	GTSGSPIADKK	NS3	1608	1618	HLA-A11	0%	Dengue virus 2	ELISPOT	IFN-g release	Positive																			
22824	GTSGSPIVDK	NS3	1608	1617	HLA-A*11:01	0%	Dengue virus 2	51 chromium	cytotoxicity	Positive																			
46575	NYADRWKCF	NS3	2031	2039	HLA-A24	0%	Dengue virus 2	51 chromium	cytotoxicity	Positive																			
65548	TFEGIPSL	NS3	1975	1983	HLA-B35	0%	Dengue virus 2	51 chromium	cytotoxicity	Positive																			
32039	KPWIDPIMV	NS5	2821	2829	HLA-B*55:02	0%	Dengue virus 2	51 chromium	cytotoxicity	Positive																			
32941	KPWIDPLMV	NS5	2821	2829	HLA class I	0%	Dengue virus 2	51 chromium	cytotoxicity	Positive																			
27083	ILGDTAWDFG	E	96	105	HLA class I	100%	Dengue virus 2	ELISPOT	IFN-g release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
19223	GEDGCWYGM	NS1	1100	1108	HLA-B*40:01	100%	Dengue virus 2	ELISPOT	IFN-g release	Positive	1	1	1																

185931	TKQTGSASSM	NSS	2802	2811	HLA-B*08:01	81% - <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1	0	
539436	ISGDGDCVVKPLDRFA	NSS	3151	3166	HLA class I	81% - <100%	Dengue virus 2	ICS	IFNg release	Positive	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1	0	
69671	VLNPNYMPSV	NSS	2673	2681	HLA-A*02:01	81% - <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1	0	
73428	YQZMWSLSMY	NSS	3249	3257	HLA-B*15:01	81% - <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1	0	
74305	HLSDVSK	NSS	517	525	HLA class I	81% - <100%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1	0	
150224	FTMAAILY	PreM	247	256	HLA-B*35:01	51%-80%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	1	1	1	0	1	1	1	1	0	0	1	1	1	1	1	1	0	1	0	
150299	ILLTAVAPSM	PreM	270	279	HLA-B*08:01	51%-80%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	1	1	0	1	1	1	1	1	1	1	1	0	1	
150571	SLFKTEGV	PreM	136	145	HLA-A*02:01	51%-80%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	0	1	0	1	0	1	0	1	0	1	0	1	1	1	1	1	1	1	1	
180588	LYLTIGTHF	PreM	254	263	HLA-B*35:01	51%-80%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	0	1	0	1	0	1	1	0	1	0	1	1	1	1	1	1	1	1	1	
180433	EPGGLKLNWF	E	663	672	HLA-B*35:01	51%-80%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	0	1	0	1	0	1	1	0	1	0	1	0	1	0	1	1	1	1	1	
180563	KILGVITWIGMNS	E	456	470	HLA class I	51%-80%	Dengue virus 2	ICS	IFNg release	Positive	1	0	1	0	1	0	1	1	0	1	0	1	0	1	1	1	1	1	1	1	
182846	EAKQPATLR	E	329	337	HLA-A*08:01	51%-80%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	0	1	0	1	0	1	1	0	1	0	1	1	1	1	1	1	1	1	1	
183747	ILIGVITW	E	737	745	HLA-B*08:01	51%-80%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	0	1	0	1	0	1	1	0	1	0	1	1	1	1	1	1	1	1	1	
150259	GPWHLCKLEM	NS1	1041	1050	HLA-B*35:01	51%-80%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	0	1	0	1	0	1	1	0	1	0	1	1	1	1	1	1	0	1	0	
186474	WKTWGWAKML	NS1	890	899	HLA-B*08:01	51%-80%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	0	1	0	1	0	1	1	0	1	0	1	0	1	1	1	1	1	1	1	
150741	YQLAVTMA	NS2a	1157	1165	HLA-A*02:01	51%-80%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	1	0	1	1	1	0	1	0	1	1	1	1	1	1	1	1	0	1	0	
183741	ILCVPNAIL	NS2a	1279	1288	HLA-B*08:01	51%-80%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	0	1	1	1	1	0	0	1	1	1	0	1	0	1	1	1	1	1	
150346	KTFDSEVVK	NS3	1863	1871	HLA-A*11:01	51%-80%	Dengue virus 2	multimer/tetramer	qualitative binding	Positive	1	0	1	0	1	0	1	1	0	1	0	1	0	1	1	1	1	0	1	0	
17802	FSPGTSGSPIDKKG	NS3	130	144	HLA class I	51%-80%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	0	1	0	1	0	1	1	0	1	0	1	0	0	1	1	1	0	1	0	
180623	LPVWLAKVY	NS3	2017	2025	HLA-B*15:01	51%-80%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	0	1	0	0	1	1	1	0	1	0	1	0	0	1	1	0	0	0	0	
180624	LPVWLAKVYA	NS3	2017	2026	HLA-B*35:01	51%-80%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	0	1	0	0	1	1	1	0	1	0	1	0	1	1	1	0	0	0	0	
180750	SPGTSGSPIDKKGK	NS3	131	145	HLA-A*11:01	51%-80%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	0	1	0	1	0	1	1	0	1	0	1	0	0	1	1	1	1	1	1	
185388	RIKQKILGY	NS3	1499	1508	HLA-B*15:01	51%-80%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0	1	0	
22818	GTSGSPIDK	NS3	133	142	HLA-A*11:01	51%-80%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	0	1	0	1	0	1	1	0	1	0	0	1	1	1	1	1	0	1	0	
22819	GTSGSPIDKX	NS3	133	143	HLA-A11	51%-80%	Dengue virus 2	51 chromium	cytotoxicity	Positive	1	0	1	0	1	0	1	1	0	1	0	1	0	1	1	1	1	0	1	0	
54176	RIKQKIL	NS3	1499	1506	HLA-B8	51%-80%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	0	1	0	
150377	LLLVAVTAY	NS4b	2355	2363	HLA-A*02:01	51%-80%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	1	1	1	0	1	1	1	1	1	1	1	0	1	0	0	0	0	0	
150639	RLVAVATPV	NS4b	2382	2391	HLA-A*02:01	51%-80%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	0	1	0	1	0	1	1	0	1	0	1	0	1	1	1	1	0	1	0	
180794	YATTVTPM	NS4b	2286	2294	HLA-B*35:01	51%-80%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	0	1	0	1	0	1	1	0	1	0	1	0	1	1	1	1	0	1	0	
35568	LEKTKDL	NS4b	2249	2256	HLA-B8	51%-80%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	0	1	0	1	0	1	1	1	0	1	0	1	0	1	1	1	0	1	0	
150554	RTTWSIAHK	NSS	3283	3291	HLA-A*11:01	51%-80%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	0	1	0	1	0	1	1	0	1	0	1	0	0	1	1	1	0	1	0	
174066	CGGLKNVREVKLTGG	NSS	2582	2598	HLA-A2	51%-80%	Dengue virus 2	ICS	IFNg release	Positive	1	0	1	0	1	0	1	1	0	1	0	0	1	1	1	0	1	1	0	1	
180500	HKLLAEAFKLTQYN	NSS	3052	3066	HLA class I	51%-80%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	0	1	0	1	1	1	1	0	1	0	1	0	0	1	1	1	0	1	0	
180582	KTWAYHGSYETQGT	NSS	2792	2806	HLA class I	51%-80%	Dengue virus 2	ICS	IFNg release	Positive	0	1	0	1	1	1	1	0	0	1	0	1	0	1	1	1	1	0	1	0	
180758	SWHYODDHPKYTWAY	NSS	291	305	HLA class I	51%-80%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	0	1	1	1	1	1	0	0	1	0	1	1	1	1	0	1	1	0	
31747	KLAEZK	NSS	3054	3062	HLA-A*02:01	51%-80%	Dengue virus 2	ELISPOT	IFNg release	Positive Low	1	0	1	0	1	0	1	1	1	0	1	0	1	1	1	1	1	0	1	0	
183766	LNRRRTAG	C	94	102	HLA-B*08:01	>0% - 50%	Dengue virus 2	ELISPOT	IFNg release	Positive	1	0	1	0	1	0	1	0	0	1	0	1	0	1	1	1	0	0	0	0	
184518	LNRRRTAG	C	95	103	HLA-B*08:01	>0% - 50%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	0	1	0	1	0	1	0	0	1	0	1	0	1	1	1	0	0	0	
180818	WILRHGFTMMMAIL	PreM	126	140	HLA class I	>0% - 50%	Dengue virus 2	ICS	IFNg release	Positive	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	
183577	HFQRALIFL	PreM	262	271	HLA-B*08:01	>0% - 50%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	1	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	
183621	HVGRIETWIL	PreM	233	242	HLA-B*08:01	>0% - 50%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	
183748	ILIGVITW	E	737	745	HLA-B*08:01	>0% - 50%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	0	0	1	0	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0
183781	IMDLKXPHVL	E	619	628	HLA-B*08:01	>0% - 50%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	0	1	1	0	0	0	0	0	1	0	1	1	1	1	1	1	1	1	
184327	LEKRNHGR	E	622	631	HLA-B*08:01	>0% - 50%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	0	1	1	1	0	0	0	0	1	0	1	1	1	1	1	1	1	1	
184755	MDLEKPHVL	E	620	628	HLA-B*08:01	>0% - 50%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	0	1	1	1	0	0	0	0	0	1	1	1	1	1	1	1	1	1	
180450	FAGPVSDQHY	NS1	1022	1031	HLA-B*35:01	>0% - 50%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	0	0	1	0	1	0	0	0	1	0	1	0	0	1	0	0	0	0	
180496	GVFTTNWLKLEKQ	NS1	936	950	HLA class I	>0% - 50%	Dengue virus 2	ICS	IFNg release	Positive	0	1	0	1	0	0	1	1	0	1	0	1	0	0	1	0	0	1	0	0	
150457	MTDDIGMGV	NS2a	1191	1199	HLA-A*01:01	>0% - 50%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	0	0	1	1	1	0	0	0	1	0	1	1	1	1	0	1	0	0	
150640	TMTDDIGMGV	NS2a	1176	1185	HLA-A*02:01	>0% - 50%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	0	1	0	1	1	1	0	0	0	1	0	1	1	1	1	0	1	0	
180671	MSFRDLGRVM	NS2a	1175	1184	HLA-B*35:01	>0% - 50%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	0	1	1	1	1	0	0	0	1	0	0	1	0	1	0	1	0	0	
180717	RDLGRVMWVSGTATMT	NS2a	51	65	HLA class I	>0% - 50%	Dengue virus 2	ICS	IFNg release	Positive	0	1	0	1	1	1	0	0	0	0	1	0	0	1	0	1	0	1	0	0	
150381	LVLSGLFPV	NS2b	1448	1457	HLA-A*02:01	>0% - 50%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	0	1	1	1	0	0	0	0	1	0	1	1	1	1	0	1	0	0	
150425	LVLSGLFPV	NS2b	1449	1457	HLA-A*02:01	>0% - 50%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	0	0	1	1	1	0	0	0	0	1	0	1	1	1	1	0	1	0	
180538	ISGLFPVSPITAAA	NS2b	106	120	HLA class I	>0% - 50%	Dengue virus 2	ICS	IFNg release	Positive	0	1	0	1	1	1	1	0	0	0	0	1	0	1	1	1	0	1	0	0	
150217	FPQSNAPIM	NS3	1800	1808	HLA-B*35:01	>0% - 50%	Dengue virus 2	ELISPOT	IFNg release	Positive	0	1	0	1	0	1	0	0	0	0	0	1	0	1	0	0					

The image displays a 100x100 grid representing a 100-year timeline from 1900 to 2099. The grid is color-coded: red for the top row (1900), green for the middle rows (1901-2098), and pink for the bottom row (2099). The leftmost column is labeled with years from 1900 to 2099. The grid is divided into four quadrants by a vertical line at the 50th column and a horizontal line at the 50th row.

Supplementary Table S7. Alignment of CD4 and CD8 epitopes in circulating dengue viruses from Brazil and six vaccine candidates. Detailed information, for Brazil, on each of the vaccine carried CD4 and CD8 T cell epitopes that are not present in any of the viral isolates, present in all of the viral isolates, present in only 81% – <100% viral isolates or 51% – 80% viral isolates or in only >0% – 50% of viral isolates for each of the epitope within each of the six vaccine candidates and for all the four dengue serotypes. The first table summarizes information retrieved on circulating viral isolate sequences available from Brazil. Next, the globally reported CD4/CD8 T cell epitopes are organized into: DENV-1 specific CD4 epitopes, DENV-2 specific CD4 epitopes, DENV-3 specific CD4 epitopes, DENV-4 specific CD4 epitopes, DENV-1 specific CD8 epitopes, DENV-2 specific CD8 epitopes, DENV-3 specific CD8 epitopes, DENV-4 specific CD8 epitopes. In each of these tables, identity of the epitope to each of the corresponding viral isolate serotype and each of the vaccine constructs are indicated. Green color shade and number 1 indicates 100% identity in the given virus isolate/vaccine construct. Pink color shade and number zero indicates not identical in the given virus isolate/vaccine construct.

NCBI ID	Strain Name	Host	Date	Continent	Country	Prot_Name	VirusType
ACO06167.1	DENV-1/BR/BID-V2395/2006	Human	2006-01-01	South America	Brazil	polyprotein	Dengue virus 1
ACO06161.1	DENV-1/BR/BID-V2389/2004	Human	2004-01-01	South America	Brazil	polyprotein	Dengue virus 1
ACO06170.1	DENV-1/BR/BID-V2398/2007	Human	2007-01-01	South America	Brazil	polyprotein	Dengue virus 1
AGN94867.1	13501/BR-PE/10	Human	2010-01-01	South America	Brazil	polyprotein	Dengue virus 1
AGN94869.1	13861/BR-PE/10	Human	2010-01-01	South America	Brazil	polyprotein	Dengue virus 1
AKQ00018.1	DENV1 BR/SJRP/807/2013	Human	2013-01-05	South America	Brazil	polyprotein	Dengue virus 1
AKQ00012.1	DENV1 BR/SJRP/354/2011	Human	2011-05-24	South America	Brazil	polyprotein	Dengue virus 1
AKQ00011.1	DENV1 BR/SJRP/287/2011	Human	2011-05-03	South America	Brazil	polyprotein	Dengue virus 1
ACO06173.1	DENV-1/BR/BID-V2401/2008	Human	2008-01-01	South America	Brazil	polyprotein	Dengue virus 1
AGN94868.1	13671/BR-PE/10	Human	2010-01-01	South America	Brazil	polyprotein	Dengue virus 1
AGN94865.1	9808/BR-PE/10	Human	2010-01-01	South America	Brazil	polyprotein	Dengue virus 1
AGN94870.1	14985/BR-PE/10	Human	2010-01-01	South America	Brazil	polyprotein	Dengue virus 1
AKQ00039.1	BR/SJRP/2271/2014	Human	2014-02-10	South America	Brazil	polyprotein	Dengue virus 1
AKQ00038.1	BR/SJRP/1107/2013	Human	2013-02-26	South America	Brazil	polyprotein	Dengue virus 1
QOW96373.1	USP-CB-54	Human	2018-11-18	South America	Brazil	polyprotein	Dengue virus 1
AKQ00016.1	BR/SJRP/709/2013	Human	2013-10-25	South America	Brazil	polyprotein	Dengue virus 1
AKQ00015.1	DENV1 BR/SJRP/509/2012	Human	2012-03-16	South America	Brazil	polyprotein	Dengue virus 1
AKQ00013.1	BR/SJRP/395/2011	Human	2011-06-08	South America	Brazil	polyprotein	Dengue virus 1
QOW96372.1	USP-CB-53	Human	2018-11-11	South America	Brazil	polyprotein	Dengue virus 1
QOW96385.1	USP-CB-111	Human	2019-06-05	South America	Brazil	polyprotein	Dengue virus 1
ACO06164.1	DENV-1/BR/BID-V2392/2005	Human	2005-01-01	South America	Brazil	polyprotein	Dengue virus 1
ACY70762.1	DENV-1/BR/BID-V3490/2008	Human	2008-01-01	South America	Brazil	polyprotein	Dengue virus 1
AGN94866.1	12898/BR-PE/10	Human	2010-01-01	South America	Brazil	polyprotein	Dengue virus 1
AKQ00014.1	DENV1 BR/SJRP/484/2012	Human	2012-02-13	South America	Brazil	polyprotein	Dengue virus 1
AKQ00010.1	DENV1 BR/SJRP/17/2010	Human	2010-10-13	South America	Brazil	polyprotein	Dengue virus 1
ACY70783.1	DENV-2/BR/BID-V3650/2008	Human	2008-01-01	South America	Brazil	polyprotein	Dengue virus 2
ACW82875.1	DENV-2/BR/BID-V3486/2008	Human	2008-01-01	South America	Brazil	polyprotein	Dengue virus 2
ACO06162.1	DENV-2/BR/BID-V2390/2004	Human	2004-01-01	South America	Brazil	polyprotein	Dengue virus 2
ACS32031.1	DENV-2/BR/BID-V2402/2008	Human	2008-01-01	South America	Brazil	polyprotein	Dengue virus 2
ACO06171.1	DENV-2/BR/BID-V2399/2007	Human	2007-01-01	South America	Brazil	polyprotein	Dengue virus 2
ACY70780.1	DENV-2/BR/BID-V3644/2008	Human	2008-01-01	South America	Brazil	polyprotein	Dengue virus 2
ADI80655.1	DENV-2/BR/BID-V3637/2008	Human	2008-01-01	South America	Brazil	polyprotein	Dengue virus 2
AGK36290.1	ACS46_II	Human	2010-03-01	South America	Brazil	polyprotein	Dengue virus 2

AGK36292.1	ACS542	Human	2010-05-04	South America	Brazil	polyprotein	Dengue virus 2
AGK36297.1	DGV106	Human	2010-04-15	South America	Brazil	polyprotein	Dengue virus 2
AKQ00025.1	BR/SJRP/779/2013	Human	2013-02-04	South America	Brazil	polyprotein	Dengue virus 2
AKQ00022.1	BR/SJRP/567/2012	Human	2012-10-31	South America	Brazil	polyprotein	Dengue virus 2
AKQ00021.1	BR/SJRP/350/2008	Human	2008-06-17	South America	Brazil	polyprotein	Dengue virus 2
QDZ58871.1	BD-RP	Human	2019-01-02	South America	Brazil	polyprotein	Dengue virus 2
QOW96380.1	USP-CB-96	Human	2019-04-18	South America	Brazil	polyprotein	Dengue virus 2
QOW96384.1	USP-CB-110	Human	2019-05-21	South America	Brazil	polyprotein	Dengue virus 2
ACO06165.1	DENV-2/BR/BID-V2393/2005	Human	2005-01-01	South America	Brazil	polyprotein	Dengue virus 2
AGK36291.1	ACS538	Human	2010-04-12	South America	Brazil	polyprotein	Dengue virus 2
AGK36294.1	ACS721	Human	2010-05-04	South America	Brazil	polyprotein	Dengue virus 2
AGN94882.1	19190/BR-PE/10	Human	2010-01-01	South America	Brazil	polyprotein	Dengue virus 2
AKQ00027.1	BR/SJRP/869/2013	Human	2013-02-08	South America	Brazil	polyprotein	Dengue virus 2
AKQ00040.1	BR/SJRP/2298/2014	Human	2014-04-03	South America	Brazil	polyprotein	Dengue virus 2
QOW96379.1	USP-CB-95	Human	2019-04-09	South America	Brazil	polyprotein	Dengue virus 2
QOW96388.1	USP-CB-121	Human	2019-07-11	South America	Brazil	polyprotein	Dengue virus 2
ACO06168.1	DENV-2/BR/BID-V2396/2006	Human	2006-01-01	South America	Brazil	polyprotein	Dengue virus 2
AGK36293.1	DGV37	Human	2010-02-24	South America	Brazil	polyprotein	Dengue virus 2
AGN94880.1	13858/BR-PE/10	Human	2010-01-01	South America	Brazil	polyprotein	Dengue virus 2
AGN94881.1	14905/BR-PE/10	Human	2010-01-01	South America	Brazil	polyprotein	Dengue virus 2
AKQ00024.1	BR/SJRP/615/2013	Human	2013-01-10	South America	Brazil	polyprotein	Dengue virus 2
AKQ00020.1	BR/SJRP/327/2006	Human	2006-05-26	South America	Brazil	polyprotein	Dengue virus 2
QBL56211.1	BeAr849487	Unknown	2017-03-28	South America	Brazil	polyprotein	Dengue virus 2
AGK36298.1	DGV69	Human	2010-03-09	South America	Brazil	polyprotein	Dengue virus 2
AGN94883.1	9479/BR-PE/10	Human	2010-01-01	South America	Brazil	polyprotein	Dengue virus 2
AKQ00026.1	BR/SJRP/846/2013	Human	2013-02-07	South America	Brazil	polyprotein	Dengue virus 2
QTX93212.1	BR-161	Human	2004-01-01	South America	Brazil	polyprotein	Dengue virus 2
ACY70744.1	DENV-3/BR/BID-V3423/2006	Human	2006-01-01	South America	Brazil	polyprotein	Dengue virus 3
ACY70765.1	DENV-3/BR/BID-V3585/2007	Human	2007-01-01	South America	Brazil	polyprotein	Dengue virus 3
ACY70760.1	DENV-3/BR/BID-V3469/2007	Human	2007-01-01	South America	Brazil	polyprotein	Dengue virus 3
ACY70761.1	DENV-3/BR/BID-V3470/2007	Human	2007-01-01	South America	Brazil	polyprotein	Dengue virus 3
ACY70767.1	DENV-3/BR/BID-V3589/2007	Human	2007-01-01	South America	Brazil	polyprotein	Dengue virus 3
ACY70771.1	DENV-3/BR/BID-V3597/2007	Human	2007-01-01	South America	Brazil	polyprotein	Dengue virus 3
ACY70777.1	DENV-3/BR/BID-V3615/2007	Human	2007-01-01	South America	Brazil	polyprotein	Dengue virus 3

ACY70764.1	DENV-3/BR/BID-V3584/2006	Human	2006-01-01	South America	Brazil	polyprotein	Dengue virus 3
ACY70772.1	DENV-3/BR/BID-V3598/2007	Human	2007-01-01	South America	Brazil	polyprotein	Dengue virus 3
ACY70769.1	DENV-3/BR/BID-V3591/2007	Human	2007-01-01	South America	Brazil	polyprotein	Dengue virus 3
ACY70768.1	DENV-3/BR/BID-V3590/2007	Human	2007-01-01	South America	Brazil	polyprotein	Dengue virus 3
ACY70748.1	DENV-3/BR/BID-V3430/2006	Human	2006-01-01	South America	Brazil	polyprotein	Dengue virus 3
ACY70755.1	DENV-3/BR/BID-V3456/2006	Human	2006-01-01	South America	Brazil	polyprotein	Dengue virus 3
ACO06166.1	DENV-3/BR/BID-V2394/2005	Human	2005-01-01	South America	Brazil	polyprotein	Dengue virus 3
AGN94904.1	249/BR-PE/05	Human	2005-01-01	South America	Brazil	polyprotein	Dengue virus 3
AGN94907.1	314/BR-PE/06	Human	2005-01-01	South America	Brazil	polyprotein	Dengue virus 3
AGN94896.1	206/BR-PE/05	Human	2005-01-01	South America	Brazil	polyprotein	Dengue virus 3
AGN94897.1	339/BR-PE/05	Human	2005-01-01	South America	Brazil	polyprotein	Dengue virus 3
AFK83756.1	D3BR/ACN/2007	Human	2007-01-01	South America	Brazil	polyprotein	Dengue virus 3
ACY70773.1	DENV-3/BR/BID-V3601/2007	Human	2007-01-01	South America	Brazil	polyprotein	Dengue virus 3
ACO06174.1	DENV-3/BR/BID-V2403/2008	Human	2008-01-01	South America	Brazil	polyprotein	Dengue virus 3
ACY70750.1	DENV-3/BR/BID-V3435/2006	Human	2006-01-01	South America	Brazil	polyprotein	Dengue virus 3
ACY70774.1	DENV-3/BR/BID-V3605/2007	Human	2007-01-01	South America	Brazil	polyprotein	Dengue virus 3
AGN94902.1	129/BR-PE/04	Human	2004-01-01	South America	Brazil	polyprotein	Dengue virus 3
AGN94899.1	145/BR-PE/04	Human	2004-01-01	South America	Brazil	polyprotein	Dengue virus 3
AGN94908.1	411/BR-PE/06	Human	2006-01-01	South America	Brazil	polyprotein	Dengue virus 3
AGN94910.1	420/BR-PE/06	Human	2006-01-01	South America	Brazil	polyprotein	Dengue virus 3
AFK83755.1	D3BR/AL95/2009	Human	2009-01-01	South America	Brazil	polyprotein	Dengue virus 3
ACY70770.1	DENV-3/BR/BID-V3593/2007	Human	2007-01-01	South America	Brazil	polyprotein	Dengue virus 3
ACY70776.1	DENV-3/BR/BID-V3609/2007	Human	2007-01-01	South America	Brazil	polyprotein	Dengue virus 3
ACW82871.1	DENV-3/BR/BID-V3444/2006	Human	2006-01-01	South America	Brazil	polyprotein	Dengue virus 3
ACY70757.1	DENV-3/BR/BID-V3460/2006	Human	2006-01-01	South America	Brazil	polyprotein	Dengue virus 3
ACO06163.1	DENV-3/BR/BID-V2391/2004	Human	2004-01-01	South America	Brazil	polyprotein	Dengue virus 3
ACW82872.1	DENV-3/BR/BID-V3463/2006	Human	2006-01-01	South America	Brazil	polyprotein	Dengue virus 3
ACY70756.1	DENV-3/BR/BID-V3457/2006	Human	2006-01-01	South America	Brazil	polyprotein	Dengue virus 3
ACO06172.1	DENV-3/BR/BID-V2400/2007	Human	2007-01-01	South America	Brazil	polyprotein	Dengue virus 3
AGN94898.1	277/BR-PE/05	Human	2005-01-01	South America	Brazil	polyprotein	Dengue virus 3
AGN94900.1	603/BR-PE/06	Human	2006-01-01	South America	Brazil	polyprotein	Dengue virus 3
AGN94903.1	161/BR-PE/04	Human	2004-01-01	South America	Brazil	polyprotein	Dengue virus 3
ACO06169.1	DENV-3/BR/BID-V2397/2006	Human	2006-01-01	South America	Brazil	polyprotein	Dengue virus 3
ACY70749.1	DENV-3/BR/BID-V3434/2006	Human	2006-01-01	South America	Brazil	polyprotein	Dengue virus 3

AEV42062.1	DENV3/BR/D3LIMHO/2006	Human	2006-01-01	South America	Brazil	polyprotein	Dengue virus 3
AGN94905.1	263/BR-PE/05	Human	2005-01-01	South America	Brazil	polyprotein	Dengue virus 3
AGN94901.1	255/BR-PE/05	Human	2005-01-01	South America	Brazil	polyprotein	Dengue virus 3
AFK83754.1	D3BR/BR8/04	Unknown	2004-01-01	South America	Brazil	polyprotein	Dengue virus 3
AEW50183.1	H772854	Human	2010-07-21	South America	Brazil	polyprotein	Dengue virus 4
AFX65867.1	H772852	Human	2010-07-18	South America	Brazil	polyprotein	Dengue virus 4
AFX65875.1	H779652	Human	2011-01-24	South America	Brazil	polyprotein	Dengue virus 4
AFX65870.1	H775222	Human	2010-11-10	South America	Brazil	polyprotein	Dengue virus 4
AFX65878.1	H780556	Human	2011-01-29	South America	Brazil	polyprotein	Dengue virus 4
AFX65880.1	H780571	Human	2011-01-13	South America	Brazil	polyprotein	Dengue virus 4
AFX65879.1	H780563	Human	2011-01-29	South America	Brazil	polyprotein	Dengue virus 4
AKQ00033.1	BR/SJRP/580/2012	Human	2012-12-10	South America	Brazil	polyprotein	Dengue virus 4
AKQ00035.1	BR/SJRP/614/2013	Human	2013-01-10	South America	Brazil	polyprotein	Dengue virus 4
AIQ84228.1	DENV-4/MT/BR28_TVP17914/2012	Human	2012-04-19	South America	Brazil	polyprotein	Dengue virus 4
AIQ84240.1	DENV-4/MT/BR48_TVP17934/2012	Human	2012-03-21	South America	Brazil	polyprotein	Dengue virus 4
AIQ84244.1	DENV-4/MT/BR35_TVP17921/2012	Human	2012-03-30	South America	Brazil	polyprotein	Dengue virus 4
AIQ84242.1	DENV-4/MT/BR44_TVP17930/2012	Human	2012-04-05	South America	Brazil	polyprotein	Dengue virus 4
AIQ84233.1	DENV-4/MT/BR76_TVP17953/2012	Human	2012-04-19	South America	Brazil	polyprotein	Dengue virus 4
AIQ84223.1	DENV-4/MT/BR12_TVP17898/2012	Human	2012-03-28	South America	Brazil	polyprotein	Dengue virus 4
AFX65872.1	H778504	Human	2011-01-11	South America	Brazil	polyprotein	Dengue virus 4
AMP43484.1	BR005AM_2011	Human	2011-03-07	South America	Brazil	polyprotein precursor	Dengue virus 4
AKQ00031.1	BR/SJRP/514/2012	Human	2012-04-02	South America	Brazil	polyprotein	Dengue virus 4
AIQ84245.1	DENV-4/MT/BR33_TVP17919/2012	Human	2012-04-20	South America	Brazil	polyprotein	Dengue virus 4
AIQ84235.1	DENV-4/MT/BR60_TVP17946/2012	Human	2012-03-14	South America	Brazil	polyprotein	Dengue virus 4
AIQ84238.1	DENV-4/MT/BR52_TVP17938/2012	Human	2012-03-20	South America	Brazil	polyprotein	Dengue virus 4
AIQ84220.1	DENV-4/MT/BR2_TVP17888/2012	Human	2012-04-23	South America	Brazil	polyprotein	Dengue virus 4
AIQ84226.1	DENV-4/MT/BR24_TVP17910/2012	Human	2012-04-19	South America	Brazil	polyprotein	Dengue virus 4
AEX91754.1	Br246RR/10	Human	2010-09-08	South America	Brazil	polyprotein precursor	Dengue virus 4
AFX65881.1	H781363	Human	2011-03-18	South America	Brazil	polyprotein	Dengue virus 4
AKQ00036.1	BR/SJRP/733/2013	Human	2013-01-30	South America	Brazil	polyprotein	Dengue virus 4
AKQ00030.1	BR/SJRP/506/2012	Human	2012-03-16	South America	Brazil	polyprotein	Dengue virus 4
ANK35834.1	LRV13/422	Human	2013-01-01	South America	Brazil	polyprotein	Dengue virus 4
AIQ84231.1	DENV-4/MT/BR91_TVP17968/2012	Human	2012-02-03	South America	Brazil	polyprotein	Dengue virus 4
AIQ84221.1	DENV-4/MT/BR8_TVP17894/2012	Human	2012-04-23	South America	Brazil	polyprotein	Dengue virus 4

AIQ84236.1	DENV-4/MT/BR55_TVP17941/2012	Human	2012-03-14	South America	Brazil	polyprotein	Dengue virus 4
AFX65874.1	H779228	Human	2011-01-14	South America	Brazil	polyprotein	Dengue virus 4
AKQ00032.1	BR/SJRP/556/2012	Human	2012-07-11	South America	Brazil	polyprotein	Dengue virus 4
AKQ00034.1	BR/SJRP/610/2013	Human	2013-01-07	South America	Brazil	polyprotein	Dengue virus 4
AKQ00028.1	BR/SJRP/500/2012	Human	2012-03-09	South America	Brazil	polyprotein	Dengue virus 4
AIQ84222.1	DENV-4/MT/BR9_TVP17895/2012	Human	2012-04-18	South America	Brazil	polyprotein	Dengue virus 4

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

000001	ADAMTS-1	NCD	1001	1001	HLA-DQA1*02:01	B*TA	<100%	Demographic	2	SLC90F7	1	IF	Phylogenetic	Position	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
000002	ADAMTS-2	NCD	1001	1001	HLA-DQA1*02:01	B*TA	<100%	Demographic	2	SLC90F7	1	IF	Phylogenetic	Position	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
000003	ADAMTS-3	NCD	1001	1001	HLA-DQA1*02:01	B*TA	<100%	Demographic	2	SLC90F7	1	IF	Phylogenetic	Position	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
000004	ADAMTS-4	NCD	1001	1001	HLA-DQA1*02:01	B*TA	<100%	Demographic	2	SLC90F7	1	IF	Phylogenetic	Position	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
000005	ADAMTS-5	NCD	1001	1001	HLA-DQA1*02:01	B*TA	<100%	Demographic	2	SLC90F7	1	IF	Phylogenetic	Position	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
000006	ADAMTS-6	NCD	1001	1001	HLA-DQA1*02:01	B*TA	<100%	Demographic	2	SLC90F7	1	IF	Phylogenetic	Position	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
000007	ADAMTS-7	NCD	1001	1001	HLA-DQA1*02:01	B*TA	<100%	Demographic	2	SLC90F7	1	IF	Phylogenetic	Position	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
000008	ADAMTS-8	NCD	1001	1001	HLA-DQA1*02:01	B*TA	<100%	Demographic	2	SLC90F7	1	IF	Phylogenetic	Position	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
000009	ADAMTS-9	NCD	1001	1001	HLA-DQA1*02:01	B*TA	<100%	Demographic	2	SLC90F7	1	IF	Phylogenetic	Position	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
000010	ADAMTS-10	NCD	1001	1001	HLA-DQA1*02:01	B*TA	<100%	Demographic	2	SLC90F7	1	IF	Phylogenetic	Position	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
000011	ADAMTS-11	NCD	1001	1001	HLA-DQA1*02:01	B*TA	<100%	Demographic	2	SLC90F7	1	IF	Phylogenetic	Position	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
000012	ADAMTS-12	NCD	1001	1001	HLA-DQA1*02:01	B*TA	<100%	Demographic	2	SLC90F7	1	IF	Phylogenetic	Position	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
000013	ADAMTS-13	NCD	1001	1001	HLA-DQA1*02:01	B*TA	<100%	Demographic	2	SLC90F7	1	IF	Phylogenetic	Position	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
000014	ADAMTS-14	NCD	1001	1001	HLA-DQA1*02:01	B*TA	<100%	Demographic	2	SLC90F7	1	IF	Phylogenetic	Position	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
000015	ADAMTS-15	NCD	1001	1001	HLA-DQA1*02:01	B*TA	<100%	Demographic	2	SLC90F7	1	IF	Phylogenetic	Position	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100

[illegible]

[illegible]

CD8 DENV-1 Epitopes

[illegible]

1840-18	LAMATFAM	NE3	1202	1210	HLA*F55:01	81%~100%	Dengue virus 1	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
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CD8 DENV-4 Epitopes

[illegible]

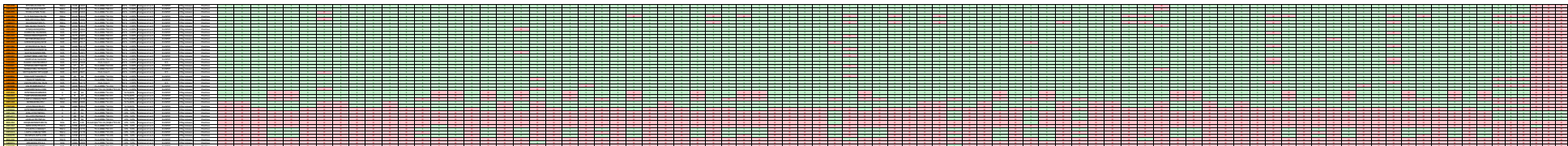
Supplementary Table S8. Alignment of CD4 and CD8 epitopes in circulating dengue viruses from Mexico and six vaccine candidates. Detailed information, for Mexico, on each of the vaccine carried CD4 and CD8 T cell epitopes that are not present in any of the viral isolates, present in all of the viral isolates, present in only 81% – <100% viral isolates, present in only 51% – 80% viral isolates, and present in only >0% – 50% of viral isolates for each of the epitope within each of the six vaccine candidates and for all the four dengue serotypes. The first table summarizes information retrieved on circulating viral isolate sequences available from Mexico. Next, the globally reported CD4/CD8 T cell epitopes are organized into: DENV-1 specific CD4 epitopes, DENV-2 specific CD4 epitopes, DENV-3 specific CD4 epitopes, DENV-1 specific CD8 epitopes, DENV-2 specific CD8 epitopes, DENV-3 specific CD8 epitopes. There are no DENV-4 sequences reported from Mexico. Also, the data for DENV-3 is not included in the analysis because of only 2 sequences, hence uninterpretable. In each of these tables, identity of the epitope to each of the corresponding viral isolate serotype and each of the vaccine constructs are indicated. Green color shade and number 1 indicates 100% identity in the given virus isolate/vaccine construct. Pink color shade and number zero indicates not identical in the given virus isolate/vaccine construct.

NCBI ID	Strain Name	Host	Date	Continent	Country	Prot_Name	VirusType
ACW82947.1	DENV-1/MX/BID-V3696/2007	Human	2007-01-01	North America	Mexico	polyprotein	Dengue virus 1
ACW82962.1	DENV-1/MX/BID-V3728/2007	Human	2007-01-01	North America	Mexico	polyprotein	Dengue virus 1
ACW82963.1	DENV-1/MX/BID-V3730/2007	Human	2007-01-01	North America	Mexico	polyprotein	Dengue virus 1
ACW82941.1	DENV-1/MX/BID-V3682/2007	Human	2007-01-01	North America	Mexico	polyprotein	Dengue virus 1
ACW82975.1	DENV-1/MX/BID-V3754/2008	Human	2008-01-01	North America	Mexico	polyprotein	Dengue virus 1
ACW82944.1	DENV-1/MX/BID-V3687/2007	Human	2007-01-01	North America	Mexico	polyprotein	Dengue virus 1
ACW82940.1	DENV-1/MX/BID-V3665/2007	Human	2007-01-01	North America	Mexico	polyprotein	Dengue virus 1
ACW82978.1	DENV-1/MX/BID-V3759/2008	Mosquito	2008-01-01	North America	Mexico	polyprotein	Dengue virus 1
ACW82946.1	DENV-1/MX/BID-V3694/2007	Human	2007-01-01	North America	Mexico	polyprotein	Dengue virus 1
ACW82974.1	DENV-1/MX/BID-V3753/2008	Human	2008-01-01	North America	Mexico	polyprotein	Dengue virus 1
ACW82960.1	DENV-1/MX/BID-V3726/2007	Human	2007-01-01	North America	Mexico	polyprotein	Dengue virus 1
ACW82971.1	DENV-1/MX/BID-V3747/2008	Human	2008-01-01	North America	Mexico	polyprotein	Dengue virus 1
ACW82950.1	DENV-1/MX/BID-V3699/2007	Human	2007-01-01	North America	Mexico	polyprotein	Dengue virus 1
ACW82964.1	DENV-1/MX/BID-V3731/2007	Human	2007-01-01	North America	Mexico	polyprotein	Dengue virus 1
ACW82979.1	DENV-1/MX/BID-V3760/2008	Mosquito	2008-01-01	North America	Mexico	polyprotein	Dengue virus 1
ACW82977.1	DENV-1/MX/BID-V3758/2008	Mosquito	2008-01-01	North America	Mexico	polyprotein	Dengue virus 1
ACW82943.1	DENV-1/MX/BID-V3686/2007	Human	2007-01-01	North America	Mexico	polyprotein	Dengue virus 1
ACW82945.1	DENV-1/MX/BID-V3689/2007	Human	2007-01-01	North America	Mexico	polyprotein	Dengue virus 1
ACW82976.1	DENV-1/MX/BID-V3756/2008	Mosquito	2008-01-01	North America	Mexico	polyprotein	Dengue virus 1
ACW82951.1	DENV-1/MX/BID-V3700/2007	Human	2007-01-01	North America	Mexico	polyprotein	Dengue virus 1
ACW82970.1	DENV-1/MX/BID-V3746/2008	Human	2008-01-01	North America	Mexico	polyprotein	Dengue virus 1
ADA60779.1	DENV-1/MX/BID-V3690/2007	Human	2007-01-01	North America	Mexico	polyprotein	Dengue virus 1
ADA60794.1	DENV-1/MX/BID-V3748/2008	Human	2008-01-01	North America	Mexico	polyprotein	Dengue virus 1
ADA60781.1	DENV-1/MX/BID-V3703/2007	Human	2007-01-01	North America	Mexico	polyprotein	Dengue virus 1
ADA60782.1	DENV-1/MX/BID-V3707/2007	Human	2007-01-01	North America	Mexico	polyprotein	Dengue virus 1
ADA60787.1	DENV-1/MX/BID-V3722/2007	Human	2007-01-01	North America	Mexico	polyprotein	Dengue virus 1
ADA60773.1	DENV-1/MX/BID-V3669/2007	Human	2007-01-01	North America	Mexico	polyprotein	Dengue virus 1
ADA60795.1	DENV-1/MX/BID-V3761/2008	Mosquito	2008-01-01	North America	Mexico	polyprotein	Dengue virus 1
ADA60778.1	DENV-1/MX/BID-V3688/2007	Human	2007-01-01	North America	Mexico	polyprotein	Dengue virus 1
ADA60772.1	DENV-1/MX/BID-V3668/2007	Human	2007-01-01	North America	Mexico	polyprotein	Dengue virus 1
ADO97104.1	DENV-1/MX/BID-V3733/2007	Human	2007-01-01	North America	Mexico	polyprotein	Dengue virus 1
AHI43703.1	DENV-1/MX/BID-V7586/2007	Human	2007-01-01	North America	Mexico	polyprotein	Dengue virus 1
AHI43728.1	DENV-1/MX/BID-V7614/2009	Human	2009-01-01	North America	Mexico	polyprotein	Dengue virus 1

AHG23208.1	DENV-1/MX/BID-V3676/2007	Human	2007-01-01	North America	Mexico	polyprotein	Dengue virus 1
AHI43700.1	DENV-1/MX/BID-V7572/2007	Human	2007-01-01	North America	Mexico	polyprotein	Dengue virus 1
AHI43723.1	DENV-1/MX/BID-V7609/2008	Human	2008-01-01	North America	Mexico	polyprotein	Dengue virus 1
AHI43730.1	DENV-1/MX/BID-V7619/2009	Human	2009-01-01	North America	Mexico	polyprotein	Dengue virus 1
AHI43727.1	DENV-1/MX/BID-V7613/2009	Human	2009-01-01	North America	Mexico	polyprotein	Dengue virus 1
AHI43731.1	DENV-1/MX/BID-V7624/2011	Human	2011-01-01	North America	Mexico	polyprotein	Dengue virus 1
AHI43729.1	DENV-1/MX/BID-V7615/2009	Human	2009-01-01	North America	Mexico	polyprotein	Dengue virus 1
AHI43720.1	DENV-1/MX/BID-V7606/2008	Human	2008-01-01	North America	Mexico	polyprotein	Dengue virus 1
AHI43710.1	DENV-1/MX/BID-V7593/2007	Human	2007-01-01	North America	Mexico	polyprotein	Dengue virus 1
AHI43712.1	DENV-1/MX/BID-V7595/2007	Human	2007-01-01	North America	Mexico	polyprotein	Dengue virus 1
AHI43751.1	DENV-1/MX/BID-V8195/2012	Human	2012-01-01	North America	Mexico	polyprotein	Dengue virus 1
AHI43708.1	DENV-1/MX/BID-V7591/2007	Human	2007-01-01	North America	Mexico	polyprotein	Dengue virus 1
AHI43699.1	DENV-1/MX/BID-V7569/2009	Mosquito	2009-01-01	North America	Mexico	polyprotein	Dengue virus 1
AHI43725.1	DENV-1/MX/BID-V7611/2009	Human	2009-01-01	North America	Mexico	polyprotein	Dengue virus 1
AHI43717.1	DENV-1/MX/BID-V7601/2008	Human	2008-01-01	North America	Mexico	polyprotein	Dengue virus 1
AHI43709.1	DENV-1/MX/BID-V7592/2007	Human	2007-01-01	North America	Mexico	polyprotein	Dengue virus 1
AHG23209.1	DENV-1/MX/BID-V3725/2007	Human	2007-01-01	North America	Mexico	polyprotein	Dengue virus 1
AHI43690.1	DENV-1/MX/BID-V7302/2011	Human	2011-01-01	North America	Mexico	polyprotein	Dengue virus 1
QNL13176.1	Vero	Human	2019-10-07	North America	Mexico	polyprotein	Dengue virus 1
ACW82949.1	DENV-1/MX/BID-V3698/2007	Human	2007-01-01	North America	Mexico	polyprotein	Dengue virus 1
ACW82969.1	DENV-1/MX/BID-V3744/2008	Human	2008-01-01	North America	Mexico	polyprotein	Dengue virus 1
ACW82939.1	DENV-1/MX/BID-V3664/2006	Human	2006-01-01	North America	Mexico	polyprotein	Dengue virus 1
ACW82953.1	DENV-1/MX/BID-V3709/2007	Human	2007-01-01	North America	Mexico	polyprotein	Dengue virus 1
ACW82942.1	DENV-1/MX/BID-V3685/2007	Human	2007-01-01	North America	Mexico	polyprotein	Dengue virus 1
ACW82958.1	DENV-1/MX/BID-V3723/2007	Human	2007-01-01	North America	Mexico	polyprotein	Dengue virus 1
ACW82973.1	DENV-1/MX/BID-V3752/2008	Human	2008-01-01	North America	Mexico	polyprotein	Dengue virus 1
ACW82972.1	DENV-1/MX/BID-V3749/2008	Human	2008-01-01	North America	Mexico	polyprotein	Dengue virus 1
ADA60769.1	DENV-1/MX/BID-V3658/2006	Human	2006-01-01	North America	Mexico	polyprotein	Dengue virus 1
ADA60777.1	DENV-1/MX/BID-V3679/2007	Human	2007-01-01	North America	Mexico	polyprotein	Dengue virus 1
ADA60792.1	DENV-1/MX/BID-V3742/2007	Human	2007-01-01	North America	Mexico	polyprotein	Dengue virus 1
ADA60776.1	DENV-1/MX/BID-V3677/2007	Human	2007-01-01	North America	Mexico	polyprotein	Dengue virus 1
ADA60784.1	DENV-1/MX/BID-V3712/2007	Human	2007-01-01	North America	Mexico	polyprotein	Dengue virus 1
ADO97103.1	DENV-1/MX/BID-V3683/2007	Human	2007-01-01	North America	Mexico	polyprotein	Dengue virus 1
ADO97105.1	DENV-1/MX/BID-V3757/2008	Mosquito	2008-01-01	North America	Mexico	polyprotein	Dengue virus 1

AHI43716.1	DENV-1/MX/BID-V7600/2008	Human	2008-01-01	North America	Mexico	polyprotein	Dengue virus 1
AHI43719.1	DENV-1/MX/BID-V7605/2008	Human	2008-01-01	North America	Mexico	polyprotein	Dengue virus 1
AHI43711.1	DENV-1/MX/BID-V7594/2007	Human	2007-01-01	North America	Mexico	polyprotein	Dengue virus 1
AHI43689.1	DENV-1/MX/BID-V7298/2011	Human	2011-01-01	North America	Mexico	polyprotein	Dengue virus 1
AHI43701.1	DENV-1/MX/BID-V7576/2007	Human	2007-01-01	North America	Mexico	polyprotein	Dengue virus 1
AHI43707.1	DENV-1/MX/BID-V7590/2007	Human	2007-01-01	North America	Mexico	polyprotein	Dengue virus 1
AHI43752.1	DENV-1/MX/BID-V8196/2011	Human	2011-01-01	North America	Mexico	polyprotein	Dengue virus 1
AHI43695.1	DENV-1/MX/BID-V7563/2008	Mosquito	2008-01-01	North America	Mexico	polyprotein	Dengue virus 1
AHI43696.1	DENV-1/MX/BID-V7565/2008	Mosquito	2008-01-01	North America	Mexico	polyprotein	Dengue virus 1
AHI43726.1	DENV-1/MX/BID-V7612/2009	Human	2009-01-01	North America	Mexico	polyprotein	Dengue virus 1
AHG23193.1	DENV-1/MX/BID-V3705/2007	Human	2007-01-01	North America	Mexico	polyprotein	Dengue virus 1
AHI43704.1	DENV-1/MX/BID-V7587/2007	Human	2007-01-01	North America	Mexico	polyprotein	Dengue virus 1
AHI43718.1	DENV-1/MX/BID-V7604/2008	Human	2008-01-01	North America	Mexico	polyprotein	Dengue virus 1
AHI43702.1	DENV-1/MX/BID-V7580/2007	Human	2007-01-01	North America	Mexico	polyprotein	Dengue virus 1
ACW82956.1	DENV-2/MX/BID-V3714/2007	Human	2007-01-01	North America	Mexico	polyprotein	Dengue virus 2
ACQ44478.1	DENV-2/MX/BID-V2964/2008	Human	2008-01-01	North America	Mexico	polyprotein	Dengue virus 2
ACY70846.1	DENV-2/MX/BID-V3768/2004	Human	2004-01-01	North America	Mexico	polyprotein	Dengue virus 2
ADA60786.1	DENV-2/MX/BID-V3717/2007	Human	2007-01-01	North America	Mexico	polyprotein	Dengue virus 2
ADA60770.1	DENV-2/MX/BID-V3661/2006	Human	2006-01-01	North America	Mexico	polyprotein	Dengue virus 2
AET43253.1	DENV-2/MX/BID-V3763/2008	Human	2008-01-01	North America	Mexico	polyprotein	Dengue virus 2
AHI43753.1	DENV-2/MX/BID-V8199/2011	Human	2011-01-01	North America	Mexico	polyprotein	Dengue virus 2
AHI43694.1	DENV-2/MX/BID-V7542/2007	Human	2007-01-01	North America	Mexico	polyprotein	Dengue virus 2
AHI43691.1	DENV-2/MX/BID-V7535/2009	Mosquito	2009-01-01	North America	Mexico	polyprotein	Dengue virus 2
AHI43692.1	DENV-2/MX/BID-V7537/2010	Mosquito	2010-01-01	North America	Mexico	polyprotein	Dengue virus 2
QBQ87236.1	G2AE	Mosquito	2012-01-01	North America	Mexico	polyprotein	Dengue virus 2
QBK56834.1	C6L_48h	Unknown	2017-01-12	North America	Mexico	polyprotein	Dengue virus 2
QBQ87238.1	G3AE	Mosquito	2012-01-01	North America	Mexico	polyprotein	Dengue virus 2
ACW82937.1	DENV-2/MX/BID-V3654/2006	Human	2006-01-01	North America	Mexico	polyprotein	Dengue virus 2
ACW82955.1	DENV-2/MX/BID-V3713/2007	Human	2007-01-01	North America	Mexico	polyprotein	Dengue virus 2
ACS32035.1	DENV-2/MX/BID-V2959/2005	Human	2005-01-01	North America	Mexico	polyprotein	Dengue virus 2
QBK56835.1	C6L_P30	Unknown	2017-01-12	North America	Mexico	polyprotein	Dengue virus 2
QBK56836.1	C6L_P56	Unknown	2017-01-12	North America	Mexico	polyprotein	Dengue virus 2
QBQ87237.1	G1AE	Mosquito	2012-01-01	North America	Mexico	polyprotein	Dengue virus 2
QNG98968.1	Vero	Human	2018-08-16	North America	Mexico	polyprotein	Dengue virus 2

ACQ44481.1	DENV-3/MX/BID-V2989/2007	Human	2007-01-01	North America	Mexico	polyprotein	Dengue virus 3
ACQ44480.1	DENV-3/MX/BID-V2987/2006	Human	2006-01-01	North America	Mexico	polyprotein	Dengue virus 3



CD4 DENV-2 Epitopes

NCBI (Out of DBV2) circulating strains from Mexico, 100% identity+green, grey, red																												DBV2 CONTRAST						
	AA Seq	Protein Name	Start	End	Athlete	step	Serotype	Method/Technique	Assay Group	Qualitative Measure	ACW829551	ACQ444441	AC7Y08461	ADA0697861	ADA0770711	AE1825511	AHM375511	ACB436921	QB8636341	QB8636341	ACW923971	ACW829551	ACS250351	QB8636351	QB8636361	QB8772371	QNG898681	TV003	TDEN	CDV	Deceptual	WNVs	TV0V	
150404	DLFLMALVLRFLTL	C	102	116	HIA-DRI1*1:01	0%	Dengue virus 2	ELISPT	IgG release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1595123	ACAMRI*TVMAHL	C	103	117	HIA-DRI1*08:02	0%	Dengue virus 2	ELISPT	IgG release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
195413	GPFLFLMALVLRFL	C	42	56	HIA-DRI1*04:01	0%	Dengue virus 2	ELISPT	IgG release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
159412	QUMMPFVMAHL	C	103	117	HIA-DRI1*08:02	0%	Dengue virus 2	ELISPT	IgG release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
159490	IGRMALNLRNRRT	C	88	102	HIA-DRI1*11:01	0%	Dengue virus 2	ELISPT	IgG release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
159454	LKFLMALVLRFLTL	C	44	58	HIA-DRI1*15:01	0%	Dengue virus 2	ELISPT	IgG release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
159510	FLACVIMMPFVMAHL	C	100	114	HIA-DRI1*08:02	0%	Dengue virus 2	ELISPT	IgG release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
159604	TVGVMLP*FMAAF	C	101	115	HIA-DRI1*08:02	0%	Dengue virus 2	ELISPT	IgG release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
53867	RGFKREGIRMALNLR	C	17	35	HLA class II	0%	Dengue virus 2	ELISPT	IgG release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
53866	HLA-DRI1*15:01	C	52	66	HLA-DRI1*15:01	0%	Dengue virus 2	ELISPT	IgG release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
538613	IGRMALNLRNRRT	C	87	101	HIA-DRI1*11:01	0%	Dengue virus 2	ELISPT	IgG release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
53843	GRMALNLRNRRT	C	89	103	HIA-DRI1*11:01	0%	Dengue virus 2	ELISPT	IgG release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
538445	ATLALMALVLRFL	C	46	60	HIA-DRI1*15:06	0%	Dengue virus 2	ELISPT	IgG release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
52953	TAGLFLVINGTKKANVLA	C	62	81	HLA class II	0%	Dengue virus 2	ELISPT	IgG release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
739176	IGRMALNLRNRRT	C	88	102	HIA-DRI1*14:02	0%	Dengue virus 2	ELISPT	IgG release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
739177	IGRMALNLRNRRT	C	88	102	HIA-DRI1*14:02	0%	Dengue virus 2	ELISPT	IgG release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
739178	IGRMALNLRNRRT	C	88	102	HIA-DRI1*14:02	0%	Dengue virus 2	ELISPT	IgG release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
739181	IGRMALNLRNRRT	C	88	102	HIA-DRI1*14:02	0%	Dengue virus 2	ELISPT	IgG release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
739182	IGRMALNLRNRRT	C	88	102	HIA-DRI1*14:02	0%	Dengue virus 2	ELISPT	IgG release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
739183	IGRMALNLRNRRT	C	88	102	HIA-DRI1*14:02	0%	Dengue virus 2	ELISPT	IgG release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
739184	IGRMALNLRNRRT	C	88	102	HIA-DRI1*14:02	0%	Dengue virus 2	ELISPT	IgG release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
740579	HLA-DRI1*14:02	C	51	65	HLA-DRI1*14:02	0%	Dengue virus 2	ELISPT	IgG release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
866092	GPFLFLMALVLRFL	C	42	56	HIA-DRI1*04:01	0%	Dengue virus 2	ELISPT	IgG release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
867734	LKFKREGIRMALNLR	C	81	95	HIA-DRI1*02:02	0%	Dengue virus 2	ELISPT	IgG release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
867910	LKFKREGIRMALNLR	C	81	95	HIA-DRI1*02:02	0%	Dengue virus 2	ELISPT	IgG release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
867911	LKFKREGIRMALNLR	C	81	95	HIA-DRI1*02:02	0%	Dengue virus 2	ELISPT	IgG release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
868074	RLMALVLRFLTL	C	45	59	HIA-DRI1*04:02	0%	Dengue virus 2	ELISPT	IgG release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
150580	HPGFLMALVLRFL	PreM	244	258	HIA-DRI1*15:01	0%	Dengue virus 2	ELISPT	IgG release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
180108	HPGFLMALVLRFL	PreM	121	135	HLA class I	0%	Dengue virus 2	ELISPT	IgG release	Low	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
195318	FQGLFLVLRFL	PreM	263	277	HIA-DRI1*07:01	0%	Dengue virus 2	ELISPT	IgG release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
195320	FQGLFLVLRFL	PreM	263	277	HIA-DRI1*07:01	0%	Dengue virus 2	ELISPT	IgG release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
195322	FQGLFLVLRFL	PreM	263	277	HIA-DRI1*07:01	0%	Dengue virus 2	ELISPT	IgG release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
195504	ILVHFLVLRFL	PreM	241	255	HIA-DRI1*15:01	0%	Dengue virus 2	ELISPT	IgG release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
195563	QVFLVLRFL	PreM	264	278	HIA-DRI1*08:02	0%	Dengue virus 2	ELISPT	IgG release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
196141	FQGLFLVLRFL	PreM	266	280	HIA-DRI1*08:02	0%	Dengue virus 2	ELISPT	IgG release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
196232	FQGLFLVLRFL	PreM	262	276	HIA-DRI1*07:01	0%	Dengue virus 2	ELISPT	IgG release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
538881	FQGLFLVLRFL	PreM	265	279	HIA-DRI1*15:06	0%	Dengue virus 2	ELISPT	IgG release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
538850	HPGFLMALVLRFL	PreM	121	135	HLA-DRI1*02:01/DB1*06:02	0%	Dengue virus 2	ELISPT	IgG release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
195793	NLEVTIMTPHSGEE	E	134	148	HIA-DRI1*04:01	0%	Dengue virus 2	ELISPT	IgG release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
538427	IKDKTLVLRFL	E	112	126	HIA-DRI1*04:03	0%	Dengue virus 2	ELISPT	IgG release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
538460	KMALVLRFL	E	114	128	HIA-DRI1*04:03	0%	Dengue virus 2	ELISPT	IgG release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
538478	KFLVLRFL	E	114	128	HIA-DRI1*14:04	0%	Dengue virus 2	ELISPT	IgG release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
538479	KFLVLRFL	E	114	128	HIA-DRI1*14:04	0%	Dengue virus 2	ELISPT	IgG release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
538629	LDTVLVLRFL	E	475	489	HIA-DRI1*15:06	0%	Dengue virus 2	ELISPT	IgG release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
866443	APWGHQVLRFL	E	205	219	HLA-DRI1*01:02/DB1*06:01	0%	Dengue virus 2	ELISPT	IgG release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
867375	KAMVLRFL	E	204	218	HLA-DRI1*01:02/DB1*06:01	0%	Dengue virus 2	ELISPT	IgG release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
866447	PPFGQVLRFL	E	371	385	HLA-DRI1*01:02/DB1*06:02	0%	Dengue virus 2	ELISPT	IgG release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
739191	HPGFLMALVLRFL	NS1	868	882	HIA-DRI1*14:02	0%	Dengue virus 2	ELISPT	IgG release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
866429	GGFTVLRFL	NS1	344	348	HIA-DRI1*01:01	0%	Dengue virus 2	ELISPT	IgG release	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			

[illegible]

CD4 DENV-3 Epitopes

Epitope_ID	AA_Seq	Protein_Name	Start	End	Allele	step	Serotype	Method/Technique	Assay Group	Qualitative Measure	g strains from Mexico, (100%)		DENV-3 constructs of vaccines					
											ACQ44481.1	ACQ44480.1	TV003	TDEN	DPV	Dengvaxia	DENVax	TVDV
195205	CLMMMLPATLAFHLT	C	104	118	HLA-DRB1*15:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	1	1	1	0	0	0
195289	FCLMMMLPATLAFHL	C	103	117	HLA-DRB1*01:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0
195517	INMLKRVNRVSTGP	C	13	27	HLA-DRB1*08:02	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0
195519	INMLKRVNRVSTGT	C	13	27	HLA-DRB1*08:02	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0
195598	KTSLCLVMILPAALA	C	100	114	HLA-DRB1*01:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0
195618	LCLMMIMPAALAFHL	C	103	117	HLA-DRB1*01:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0
195803	NMLKRVNRVSTGPQ	C	14	28	HLA-DRB1*11:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0
195966	SLCLMMIMPAALAFH	C	102	116	HLA-DRB1*08:02	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0
195967	SLCLMMMLPATLAFH	C	102	116	HLA-DRB1*08:02	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	1	1	1	0	0	0
539447	IVNRRKTSCLMMLM	C	94	108	HLA-DRB1*13:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0
539906	SIINRRKRTSLCLMM	C	93	107	HLA-DRB1*13:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0
540118	WGSFKKSGAVKVLRG	C	69	83	HLA-DRB1*09:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0
540119	WGTFKKLGAIKVLKG	C	69	83	HLA-DRB1*09:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0
540120	WGTFKKLGAIKVLRG	C	69	83	HLA-DRB1*09:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0
540122	WGTFKKSGAIKVLKS	C	69	83	HLA-DRB1*09:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0
540123	WGTFKKSGAIKVLRG	C	69	83	HLA-DRB1*09:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	1	0	1	0	0	0
540124	WGTFKKSGAIRVLRG	C	69	83	HLA-DRB1*09:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0
591709	LRGFKKEISNMLSII	C	81	95	HLA-DRB1*13:02	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	1	0	1	0	0	0
591723	NMLSIIINRRKTSCLC	C	90	104	HLA-DRB1*11:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	1	0	1	0	0	0
591746	RGFKKEISNMLSIIIN	C	82	96	HLA-DRB1*04:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	1	0	1	0	0	0
867744	LKSFKEISNMLSII	C	81	95	HLA-DRB3*02:02	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0
867909	LRGFKKEISNMLSII	C	64	78	HLA-DRB3*02:02	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0
868645	RGLLNGQGPMLVMA	C	15	29	HLA-DRB3*02:02	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	1	1	1	0	0	0
868733	RWGTFKKSGAIKVLK	C	48	62	HLA-DRB3*02:02	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	1	0	1	0	0	0
195968	SLIQKVVIFILLMLV	PreM	261	275	HLA-DRB1*15:06	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0
196067	TQKVVIFVLLMLVTP	PreM	263	277	HLA-DRB1*15:06	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0
539529	KVVIFILLVTPSM	PreM	265	279	HLA-DRB1*15:06	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	1	0	0	0	0
539808	QKVIVFTLLMLVTPS	PreM	264	278	HLA-DRB1*15:06	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0
119134	EGKVVQYENLYTVI	E	126	140	HLA-DR2	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0
196170	VQHENLYTVIITH	E	130	144	HLA-DRB1*07:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	1	1	1	1	1	1
539400	IEGKVVQYENLYTVI	E	405	419	HLA-DRB1*15:02	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0
539476	KKELLVTFKNAHAKK	E	511	525	HLA-DRB1*14:04	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	1	0	1	0	0	0
539559	LGKMWVHQIFGSAYTA	E	710	724	HLA-DRB1*04:03	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	1	1	1	1	1	1
539856	RKELLITFKNAHAKK	E	511	525	HLA-DRB1*04:03	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0
591605	AFVLKKEVSETQHGT	E	303	317	HLA-DRB1*04:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	1	0	1	0	0	0
591719	NEMILLTMKNRAWMV	E	474	488	HLA-DRB1*11:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0
739011	GGVLNSLGMVHQIF	E	704	718	HLA-DRB1*11:04	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	1	1	1	1	1	1
739344	KMVHQIFGSAYTALF	E	31	45	HLA-DRB3*02:02	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	1	1	1	1	1	1
866574	EIQNSGGTSIFAGHL	E	547	561	HLA-DQA1*01:02/QQB1*06:02	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	1	0	1	0	0
867374	KAWIVHRQWFFDLPL	E	482	496	HLA-DQA1*01:01/QQB1*05:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0
869693	WMVHRQWLFDLPLW	E	87	101	HLA-DQA1*01:01/QQB1*05:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0
195577	KLTVVVDGTIGVLEQ	NS1	858	872	HLA-DRB1*03:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0
539070	AKIVTAETRNSSFII	NS1	121	135	HLA-DRB1*13:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0
539457	KAKIVIAETQNSSFII	NS1	893	907	HLA-DRB1*13:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0
866698	FGVFTTNIVLKL RDV	NS1	933	947	HLA-DPB1*04:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0
167810	RENLLGVGLAMATTLQLPE	NS2a	1224	1243	HLA-DP	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	1	0	1	0	0	0
195125	AGVIFTFVLLSGQI	NS2a	1159	1173	HLA-DRB1*07:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0
195128	AGVLFMFVLLSGQI	NS2a	1159	1173	HLA-DRB1*07:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0
195133	AHTFIMIGSNASDRM	NS2a	1179	1193	HLA-DRB1*04:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0
195166	ANTFIMIGSNASDRM	NS2a	1179	1193	HLA-DRB1*04:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0
195433	GVLFVLLSGQIT	NS2a	1160	1174	HLA-DRB1*15:06	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	1	0	1	0	0	0
195456	HMIAGILFMFVLLLS	NS2a	1156	1170	HLA-DRB1*11:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0
195630	LFTFVLLSGQITWR	NS2a	1162	1176	HLA-DRB1*07:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	1	0	1	0	0	0
195734	LVSLTCSNTILTLTV	NS2a	1274	1288	HLA-DRB1*07:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0
195740	LWTALVSLTCSNTIF	NS2a	1270	1284	HLA-DRB1*07:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	1	0	0	0	0
196123	VGVLFTFVLLSGQI	NS2a	1159	1173	HLA-DRB1*07:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0
539802	QFETYQLWTALVSLT	NS2a	1264	1278	HLA-DRB1*15:02	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	1	0	0	0	0
540048	VLFTFVLLSGQITWR	NS2a	1161	1175	HLA-DRB1*09:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	1	0	1	0	0	0
865959	AGALFTFVLLSGQI	NS2a	1159	1173	HLA-DPB1*04:02	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0

867702	LIATFKIQPFLTLGF	NS2a	1202	1216	HLA-DRB1*01:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0
868109	MIAGVITFVLLLSG	NS2a	1157	1171	HLA-DRB1*04:02	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0
869592	VQPFLLAGFFLRKLT	NS2a	1208	1222	HLA-DRB1*01:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0
739173	IGLVSILASSLLRND	NS2b	1354	1368	HLA-DRB1*11:04	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0
21420	GNEWITDFVGKTVWF	NS3	31	45	HLA-DRB1*15:01	0%	Dengue virus 3	ICS	IFNg release	Positive	0	0	0	1	0	0	0	0
49767	PTRVVAAMEEAMKG	NS3	1697	1711	HLA-DRB1*15:01	0%	Dengue virus 3	ICS	IFNg release	Positive	0	0	0	0	0	0	0	0
539432	IREAIKRRRLTLILA	NS3	1682	1696	HLA-DRB1*08:03	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0
539777	PKNFQTMPGIFQTT	NS3	1579	1593	HLA-DRB1*04:03	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	1	1	1	0	0	0
540037	VGKTVWFVPSIKAGN	NS3	1829	1843	HLA-DRB1*08:03	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	1	0	0	0	0
72654	WITDFVGKTVWF	NS3	1824	1834	HLA-DR15	0%	Dengue virus 3	51 chromium	cytotoxicity	Positive	0	0	0	1	0	0	0	0
869278	TMWVHVRGAVLTHNG	NS3	1521	1535	HLA-DQA1*05:01/DQB1*02:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	1	1	1	0	0	0
195199	AYVIGILTAAIVA	NS4a	2227	2241	HLA-DRB1*01:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	1	1	1	0	0	0
195742	MADVPLQWIASAIVL	NS4a	2189	2203	HLA-DRB1*07:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	1	1	1	0	0	0
196168	VPLQWIASAIVLEFF	NS4a	2192	2206	HLA-DRB1*01:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	1	1	1	0	0	0
539900	SGMLWMADVPLQWIA	NS4a	2184	2198	HLA-DRB1*04:03	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	1	1	1	0	0	0
739020	GIGKTSIGLICVIVS	NS4a	2169	2183	HLA-DRB1*11:04	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0
867986	LTLTAAVLLATHYA	NS4b	2347	2361	HLA-DQA1*01:02/DQB1*06:02	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	1	0	0	0	0
869526	VLLLVTHYAIIGPL	NS4b	2353	2367	HLA-DRB1*02:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	1	0	1	0	0	0
195410	GNIVSSVNMVSRLL	NS5	2715	2729	HLA-DRB1*03:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	1	1	1	0	0	0
195437	GYLRDISKIPGGAM	NS5	43	57	HLA-DRB1*08:02	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	1	1	1	0	0	0
195641	LHKLGYLRLDISKIP	NS5	39	53	HLA-DRB1*03:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	1	1	1	0	0	0
195780	NEDHWFSDRNSYSVG	NS5	2982	2996	HLA-DRB1*04:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0
195812	NRFTMTTHRRPTIEK	NS5	18	32	HLA-DRB1*11:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	1	1	1	0	0	0
196041	TGNIVSSVNMVSRLL	NS5	2714	2728	HLA-DRB1*04:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	1	1	1	0	0	0
196222	WNIVKLMGKDVFLY	NS5	2611	2625	HLA-DRB1*15:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	1	1	1	0	0	0
196239	YQNKVVVKVRPTPGK	NS5	3062	3076	HLA-DRB1*08:02	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	1	1	1	0	0	0
32944	KPWDVVPVTV	NS5	2819	2827	HLA class II	0%	Dengue virus 3	ELISA	IL-2 release	Positive	0	0	0	0	0	0	0	0
539449	IVSSVNMVSRLLNLR	NS5	2717	2731	HLA-DRB1*11:04	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	1	1	1	0	0	0
539604	LNTFTNMEAQLVRQM	NS5	3098	3112	HLA-DRB1*10:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	1	0	0	0	0
539739	NMEVQLVRQMEGEGV	NS5	3103	3117	HLA-DRB1*13:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0
540019	TYGLNTFTNMEAQLV	NS5	3095	3109	HLA-DRB1*04:03	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	1	0	0	0	0
540090	VSSVNMVSRLLNRF	NS5	2718	2732	HLA-DRB1*14:04	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	1	1	1	0	0	0
591602	ACLGKAYAQMWTLMY	NS5	3242	3256	HLA-DRB1*04:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	1	0	1	0	0	0
740771	YGLNTFTNMEVQLVR	NS5	3096	3110	HLA-DRB1*04:07	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	0	0	0	0	0
868338	PMSTYGNIVKMLMSG	NS5	2605	2619	HLA-DQA1*01:01/DQB1*05:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	1	1	1	0	0	0
1068391	TGKPSINMLKVRNR	C	8	22	HLA-DRB1*11:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive-Low	1	1	1	1	1	0	0	0
195303	FKKEISNMLSIINKR	C	37	51	HLA-DRB1*04:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	0	1	0	0	0	0
195306	FLRFLAIPPTAGVLA	C	6	20	HLA-DRB1*01:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
195469	IAFLRLAIPPTAGV	C	4	18	HLA-DRB1*04:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
195497	IKVLKGFKKEISNML	C	31	45	HLA-DRB1*04:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	0	1	0	0	0	0
195518	INMLKVRNRVSTGS	C	13	27	HLA-DRB1*08:02	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
195536	ISNMLSIINKRKKT	C	41	55	HLA-DRB1*11:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	0	1	0	0	0	0
195559	KEISNMLSIINKRKK	C	39	53	HLA-DRB1*04:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	0	1	0	0	0	0
195597	KTSLCLMMILPAALA	C	53	67	HLA-DRB1*01:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	0	0	0	0	0	0
195611	LARWGTFFKSGAIVK	C	19	33	HLA-DRB1*07:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
195649	LKGFKKEISNMLSII	C	34	48	HLA-DRB1*07:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	0	1	0	0	0	0
195961	SINMLKVRNRVSTG	C	12	26	HLA-DRB1*08:02	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
36858	LKGFKKEISNML	C	81	92	HLA-DPw4	100%	Dengue virus 3	ICS	IFNg release	Positive	1	1	0	1	0	0	0	0
539277	GAIVLKGFKKEISN	C	29	43	HLA-DRB1*12:02	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	0	1	0	0	0	0
539502	KPSINMLKVRNRVSV	C	10	24	HLA-DRB1*08:03	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
539512	KSGAIVLKGFKKEI	C	27	41	HLA-DRB1*12:02	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	0	1	0	0	0	0
539787	PSINMLKVRNRVST	C	11	25	HLA-DRB1*14:04	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
539897	SGAIVLKGFKKEIS	C	28	42	HLA-DRB1*14:04	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	0	1	0	0	0	0
539926	SNMLSIINKRKKTSL	C	42	56	HLA-DRB1*12:02	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	0	1	0	0	0	0
540121	WGTFFKSGAIVLKG	C	22	36	HLA-DRB1*09:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	0	1	0	0	0	0
738443	AFRLFLAIPPTAGVL	C	52	66	HLA-DRB1*04:07	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
740207	RWGTFFKSGAIVLKG	C	68	82	HLA-DRB1*14:02	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	0	1	0	0	0	0
195602	KVIFILLMLVTPSM	PreM	265	279	HLA-DRB1*01:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	1	1	1	1
195726	LTOQKVIFILLMLVT	PreM	262	276	HLA-DRB1*11:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	1	1	1	1
195830	PGFTILALFLAHYIG	PreM	245	259	HLA-DRB1*15:06	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1
196203	VVIFILLMLVTPSMT	PreM	266	280	HLA-DRB1*07:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	1	0	1	1
540004	TSLTQKVIFILLML	PreM	260	274	HLA-DRB1*04:02	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	1	1	1	1
867082	HPGFTILALFLAHYI	PreM	244	258	HLA-DRB1*02:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1
869302	TQKVIFILLMLVTP	PreM	263	277	HLA-DRB1*04:02	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	1	1	1	1

119289	NGRLITANPVVTKKE	E	626	640	HLA-DRB1*08:02	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1
119327	RKELLVTFKNAHAKK	E	231	245	HLA-DR2	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	0	1	0	1	1	1
13376	EMILLTMKNKAWMVH	E	473	487	HLA-DRB1*13:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	0	1
195215	DFNEMILLTMKNKAW	E	470	484	HLA-DRB1*14:04	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	0	1
195252	ELLVTFKNAHAKKOE	E	513	527	HLA-DRB1*04:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1
195341	FVLKKEVSETQHGTI	E	584	598	HLA-DRB1*04:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1
195365	GHLKCRMKDKLELK	E	559	573	HLA-DRB1*03:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	0
195416	GRLITANPVVTKKEE	E	627	641	HLA-DRB1*08:02	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1
195813	NRKELLVTFKNAHAK	E	510	524	HLA-DRB1*04:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	0	1	0	1	1	1
196033	TFVLKKEVSETQHGT	E	583	597	HLA-DRB1*04:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	0	1	0	1	0	1
196172	VQYENLKYYTIVTVH	E	410	424	HLA-DRB1*07:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	0	0	0	0	0	0
539460	KELLVTFKNAHAKKQ	E	512	526	HLA-DRB1*08:03	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1
539710	NEMILLTMKNKAWMV	E	472	486	HLA-DRB1*04:03	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	0	1
739041	GMSYAMCTNTFVLKK	E	574	588	HLA-DRB1*04:07	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	0	0	0	0	0	0
740409	SVGGVLNSLGKMMVHQ	E	702	716	HLA-DRB1*11:04	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1
741746	MRCVGVGNRDFVEGLSGATW	E	281	300	HLA class II	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1
867377	KCRMKMDKLELKGM5	E	562	576	HLA-DRB3*02:02	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	0
868175	MVHRQWFFDLPLPWT	E	485	499	HLA-DQA1*01:01/DOB1*05:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1
190705	AKIVTAETQNSFFII	NS1	894	908	HLA-DRB1*04:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
190823	KLTVVVGDIIGVLEQ	NS1	85	99	HLA-DR2	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
190825	KQJANELNYILWENN	NS1	69	83	HLA-DR2	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
190996	TEQYKFQADSPKRLA	NS1	802	816	HLA-DRB5*01:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
195164	ANELNYILWENNIK	NS1	845	859	HLA-DRB1*03:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
195419	GSWKLEKASLIEVKT	NS1	981	995	HLA-DRB1*01:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
195692	LNLYLWENNKLTVV	NS1	848	862	HLA-DRB1*03:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
195782	NELNYLWENNKL	NS1	846	860	HLA-DRB1*03:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
196235	YKFQADSPKRLATAI	NS1	805	819	HLA-DRB1*03:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
539717	NGSWKLEKASLIEVK	NS1	980	994	HLA-DRB1*09:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
539825	QYKFQADSPKRLATA	NS1	804	818	HLA-DRB3*02:02	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
866700	FGVFTTNWLKLEKREV	NS1	933	947	HLA-DPB1*01:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	0	0	0	0	0	0
867042	HADMGWYIESOKNGS	NS1	968	982	HLA-DQA1*01:01/DOB1*05:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
195134	AHTLIMIGSNASDRM	NS2a	1179	1193	HLA-DRB1*04:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
195197	AWRTATLILAGVSL	NS2a	1289	1303	HLA-DRB1*01:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	0	1	0	0	0	0
195222	DMAHTLIMIGSNASD	NS2a	1177	1191	HLA-DRB1*04:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
195335	FTFVLLSGQITWRD	NS2a	1163	1177	HLA-DRB1*15:02	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	1	0	0	0
195337	FTLVAVWRTATLILA	NS2a	1284	1298	HLA-DRB1*07:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
195342	FVLLSGQITWRDMA	NS2a	1165	1179	HLA-DRB1*01:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	1	0	0	0
195429	GVFTFVLLSGQIT	NS2a	1160	1174	HLA-DRB1*04:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	0	0	0	0	0	0
195462	HTLIMIGSNASDRMG	NS2a	1180	1194	HLA-DRB1*04:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
195481	IFTLTVAWRTATIL	NS2a	1283	1297	HLA-DRB1*07:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
195609	LALGFLLRKLTSEN	NS2a	1212	1226	HLA-DRB1*11:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
195632	LGFFLLRKLTSENLL	NS2a	1214	1228	HLA-DRB1*11:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	1	0	0	0
195644	LIMIGSNASDRMGMG	NS2a	1182	1196	HLA-DRB1*04:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
195645	LISLTCSTNIFTLTV	NS2a	1274	1288	HLA-DRB1*07:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	0	0	0	0	0	0
195729	LTVAWRTATLILAGV	NS2a	1286	1300	HLA-DPB1*04:02	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	0	0	1	0	0	0
195743	MAHTLIMIGSNASDR	NS2a	1178	1192	HLA-DRB1*04:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
195757	MGVTVLALIAFKIQ	NS2a	1195	1209	HLA-DRB1*07:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
195819	NTIFTLTVAWRTATIL	NS2a	1281	1295	HLA-DRB1*07:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
195836	PLFIFSLDKTLKRS	NS2a	1330	1344	HLA-DRB1*11:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
195912	RTATLILAGVSLLPV	NS2a	1291	1305	HLA-DRB1*03:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	0	1	0	0	0	0
539075	ALGFFLLRKLTSEN	NS2a	1213	1227	HLA-DRB1*12:02	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	1	0	0	0
539370	GVTVLALIAFKIQ	NS2a	1196	1210	HLA-DRB1*10:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
539429	IQPFLALGFFLRKLT	NS2a	1208	1222	HLA-DRB1*15:06	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
539568	LIATFKIQPFLALGF	NS2a	1202	1216	HLA-DRB1*15:06	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
540093	VTVLALIAFKIQ	NS2a	1197	1211	HLA-DRB1*04:03	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
867442	KLITQFETYQLWTAL	NS2a	1260	1274	HLA-DPB1*02:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
867551	LALIAFKIQPFLAL	NS2a	1200	1214	HLA-DPB1*04:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
868046	MALKLITQFETYQLW	NS2a	1257	1271	HLA-DPB1*01:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
868303	PFLALGFFLRKLT	NS2a	1210	1224	HLA-DPB1*01:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
868329	PLPLFIFSLDKTLKR	NS2a	1328	1342	HLA-DPB1*01:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
868551	QPFLALGFFLRKLT	NS2a	1209	1223	HLA-DPB1*02:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
869256	TLTVAWRTATLILAG	NS2a	1285	1299	HLA-DPB1*04:02	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
869298	TQFETYQLWTALISL	NS2a	1263	1277	HLA-DPB1*04:02	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	0	0	0	0	0	0
167823	TMRIKDDTENILTVLLKTA	NS2b	83	102	HLA-DRB1*15:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0

195180	ASSLLRNDVPMAGPL	NS2b	1361	1375	HLA-DRB1*03:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
195403	GLVSILASSLLRNDV	NS2b	1355	1369	HLA-DRB1*01:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
195789	NILTLLKALLIV	NS2b	1436	1450	HLA-DRB1*01:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
195994	SSLLRNDVPMAGPLV	NS2b	1362	1376	HLA-DRB1*03:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
196152	VMAVGLVSILASSLL	NS2b	1351	1365	HLA-DRB1*07:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
539100	AVGLVSILASSLLRN	NS2b	1353	1367	HLA-DRB1*10:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
540087	VSGIFPYSIPATLLV	NS2b	1449	1463	HLA-DRB1*09:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
1067120	GKVVGLYNGVGVTKN	NS3	1617	1631	HLA-DRB1*15:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	0	1	0	0	0	0
150544	RLRTLILAPTRVVA	NS3	1688	1702	HLA-DRB1*01:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
150617	TFTMRLSPVRVPNY	NS3	1738	1752	HLA-DRB1*01:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
190307	REIVDLMCHATF	NS3	255	266	HLA-DPA1*01:03/DPB1*02:01	100%	Dengue virus 3	ELISA	IL-2 release	Positive	1	1	1	1	1	0	0	0
190710	ANCLRKNGKKVQLS	NS3	1846	1860	HLA-DRB1*13:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
190732	EAAAFMTATPPGTA	NS3	1782	1796	HLA-DRB1*04:03	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
190774	GKTVWFVPSIKAGND	NS3	357	371	HLA-DR2	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
195144	AIVREAIKRLRTL	NS3	1680	1694	HLA-DRB1*08:02	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
195243	EGKVGLYNGGVVTK	NS3	5	19	HLA-DRB1*15:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	0	1	0	0	0	0
195297	FHTMWHVTRGAVLTY	NS3	1519	1533	HLA-DRB1*07:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	0	0	0	0	0	0
195430	GVFHTMWHVTRGAVL	NS3	1517	1531	HLA-DRB1*07:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
195898	RLRTLILAPTRVVA	NS3	1689	1703	HLA-DRB1*04:03	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
28422	IRYQTATK	NS3	241	249	HLA-DR15	100%	Dengue virus 3	51 chromium	cytotoxicity	Positive	1	1	1	1	1	0	0	0
30395	KEGEKKLRPRWLDA	NS3	585	599	HLA class II	100%	Dengue virus 3	ICS	IFNg release	Positive	1	1	1	1	1	0	0	0
38401	LPAIVREAIKRLRT	NS3	1678	1692	HLA-DRB3*02:02	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
39	AAAFMTATPPGTA	NS3	1783	1797	HLA-DRB1*04:03	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
45670	NREGKVGLYNGGVV	NS3	141	155	HLA-DRB1*15:01	100%	Dengue virus 3	multimer/tetramer	qualitative binding	Positive	1	1	0	1	0	0	0	0
539028	AAAFMTATPPGTADA	NS3	1784	1798	HLA-DRB1*10:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
539052	AGKTVWFVPSIKAGN	NS3	1829	1843	HLA-DRB1*08:03	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	0	1	0	0	0	0
539578	LKGLPIRYQTATKS	NS3	1709	1723	HLA-DRB1*13:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
539607	LPIRYQTATKSEHT	NS3	1712	1726	HLA-DRB1*13:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
539714	NGKKVIQLSRKTFDT	NS3	1852	1866	HLA-DRB1*12:02	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
539838	REAIKRLRTLILAP	NS3	1683	1697	HLA-DRB1*14:04	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
539844	REGKVGLYNGGVV	NS3	1615	1629	HLA-DRB1*01:02	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	0	1	0	0	0	0
539991	TMRLSPVRVPNYNL	NS3	1740	1754	HLA-DRB1*13:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
540039	VGLYNGVVTKNNGGY	NS3	9	23	HLA-DRB1*15:06	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	0	1	0	0	0	0
54455	RKYLPAIVRE	NS3	202	211	HLA-DR15	100%	Dengue virus 3	51 chromium	cytotoxicity	Positive	1	1	1	1	1	0	0	0
55024	RNLTIMDLHPGSGKT	NS3	187	201	HLA class II	100%	Dengue virus 3	ICS	IFNg release	Positive	1	1	1	1	1	0	0	0
66127	TRVVAAMEEA	NS3	225	235	HLA-DR15	100%	Dengue virus 3	51 chromium	cytotoxicity	Positive	1	1	1	1	1	0	0	0
68015	VDLMCHATFT	NS3	258	267	HLA-DPw2	100%	Dengue virus 3	51 chromium	cytotoxicity	Positive	1	1	1	1	1	0	0	0
70708	VREAIKRLRTLILA	NS3	1682	1696	HLA-DRB1*12:02	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
866771	FQTTTGEIGAIALDF	NS3	1589	1603	HLA-DQA1*03:01/DQB1*03:02	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
867106	HTMWHVTRGAVLTYN	NS3	1520	1534	HLA-DQA1*05:01/DQB1*02:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	0	0	0	0	0	0
867358	IVREAIKRLRTLIL	NS3	1681	1695	HLA-DRB3*02:02	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
867534	KYLPAIVREAIKRL	NS3	1676	1690	HLA-DRB4*01:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
867875	LNDWDFVTTDISEM	NS3	1873	1887	HLA-DQA1*03:01/DQB1*03:02	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
869689	WHVTRGAVLTYNGKR	NS3	1523	1537	HLA-DQA1*05:01/DQB1*02:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	0	0	0	0	0	0
167755	IALDLVTEIGRVPSHLAHT	NS4a	2	21	HLA class II	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
195522	IPLQWIASAIVLEFF	NS4a	2192	2206	HLA-DRB1*01:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	0	0	0	0	0	0
195828	PETMETLLLLGLMIL	NS4a	2141	2155	HLA-DRB1*15:06	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
196056	TLLLGLMILLTGA	NS4a	2146	2160	HLA-DRB1*15:06	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
739464	LFISGKGIGKTSIG	NS4a	2162	2176	HLA-DRB1*01:02	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
869474	VIGILTAAIAANE	NS4a	2230	2244	HLA-DQA1*01:02/DQB1*06:02	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	0	0	0	0	0	0
195346	GAGLAFSIMKSVGTG	NS4b	2474	2488	HLA-DRB1*04:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
195607	LAFSIMKSVGTGKRG	NS4b	2477	2491	HLA-DRB1*04:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
195617	LCAVQLLMRTSWAL	NS4b	2418	2432	HLA-DRB1*15:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	0	1	0	0	0	0
195624	LDPVIYDSKFEQLG	NS4b	2397	2411	HLA-DRB1*03:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
195663	LLLITHYAIIGPLG	NS4b	2354	2368	HLA-DRB1*07:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	0	0	0	0	0	0
195664	LLLMRTSWALCEAL	NS4b	2423	2437	HLA-DRB1*04:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	0	1	0	0	0	0
195807	NPLTLTAAVLLITH	NS4b	2345	2359	HLA-DRB1*07:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	0	0	0	0	0	0
195871	QVMLLVCAVQLLLM	NS4b	2412	2426	HLA-DRB1*01:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
196023	TAAVLLLITHYAIIG	NS4b	2350	2364	HLA-DRB1*15:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	0	0	0	0	0	0
196137	VLCVQLLMRTSWA	NS4b	2417	2431	HLA-DRB1*12:02	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
196155	VMLLVCAVQLLLMR	NS4b	2413	2427	HLA-DRB1*03:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
196163	VNPLTLTAAVLLIT	NS4b	2344	2358	HLA-DRB1*01:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	0	0	0	0	0	0
738453	AGLAFSIMKSVGTGK	NS4b	2475	2489	HLA-DRB1*04:07	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
868878	SLAAIANQAVVLMGL	NS4b	2306	2320	HLA-DQA1*01:02/DQB1*06:02	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0

167753	HVNAEPETPNMDVIGERIKR	NS5	263	282	HLA class II	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	0	1	0	0	0	0
167769	KKLNQLSRKEFDL	NS5	15	27	HLA-DP	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	0	1	0	0	0	0
195136	AIFKLTQNKVVKVQ	NS5	3056	3070	HLA-DRB1*09:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
195204	CLGKAYAQMWLSLMYF	NS5	3243	3257	HLA-DRB1*04:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	0	1	0	0	0	0
195273	ETKGVERLKRMAISG	NS5	3138	3152	HLA-DRB1*11:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
195382	GKVRKDIPQWQPSKG	NS5	3175	3189	HLA-DRB1*03:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
195408	GNIVASVNMVSRLL	NS5	3	17	HLA-DRB1*03:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	0	0	0	0	0	0
195568	KHGGMLVRNPLSRNS	NS5	2689	2703	HLA-DRB1*08:02	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
195668	LLNRFMTTHRPTIE	NS5	16	30	HLA-DRB1*11:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
195779	NDMGKVRKDIPQWQP	NS5	3172	3186	HLA-DRB1*03:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
195806	NMVSRLLLNRFMTM	NS5	2722	2736	HLA-DRB1*08:02	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
195875	RAIWYMWLGARYLEF	NS5	2961	2975	HLA-DRB1*01:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
195939	SCVYNMMGKREKKG	NS5	2938	2952	HLA-DRB1*11:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
196038	TGNIVASVNMVSRLL	NS5	2	16	HLA-DRB1*04:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	0	0	0	0	0	0
196162	VNMVSRLLNRFMTM	NS5	9	23	HLA-DRB1*11:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
196221	WLWRTLGRNKKPRLC	NS5	157	171	HLA-DRB1*14:02	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	0	0	0	0	0	0
196224	WSLMYFHRRDLRLAS	NS5	3252	3266	HLA-DRB1*03:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	0	1	0	0	0	0
231420	RYLEFALGFLNEDH	NS5	2971	2985	HLA-DPB1*04:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	1	0	0	0
539444	IVASVNMVSRLLNLR	NS5	2717	2731	HLA-DRB1*12:02	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	0	0	0	0	0	0
539458	KCGSCVYNMMGKREK	NS5	2935	2949	HLA-DRB1*13:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
539600	LMYFHRRDLRLASNA	NS5	3254	3268	HLA-DRB1*13:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
539704	NAIFKLTQNKVVKV	NS5	3055	3069	HLA-DRB1*09:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
539726	NIVASVNMVSRLLN	NS5	2716	2730	HLA-DRB1*15:06	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	0	0	0	0	0	0
539831	RATWAQNIPTAIQQV	NS5	3346	3360	HLA-DRB1*09:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	0	0	0	0	0	0
539872	RRDLRLASNAICSAV	NS5	3259	3273	HLA-DRB1*04:03	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
539916	SLMYFHRRDLRLASN	NS5	3253	3267	HLA-DRB1*13:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	0	1	0	0	0	0
539945	SVNMVSRLLNRFMTM	NS5	2720	2734	HLA-DRB1*12:02	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
540025	VASVNMVSRLLNRF	NS5	2718	2732	HLA-DRB1*14:04	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	0	0	0	0	0	0
540152	YKTWAYHGSYEVKAT	NS5	2789	2803	HLA-DRB1*09:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
738537	ASVNMVSRLLNRF	NS5	7	21	HLA-DRB1*14:06	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	0	0	0	0	0	0
738753	EEFLDYMPMSMKRFRK	NS5	3367	3381	HLA-DRB1*14:02	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	1	0	0	0
738759	EFLDYMPMSMKRFRKE	NS5	3368	3382	HLA-DRB1*14:06	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	1	0	0	0
738829	ERELHKLKCGSCVY	NS5	2927	2941	HLA-DRB1*11:04	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
857703	IWYMWLGGARYLEFA	NS5	2963	2977	HLA-DPB1*04:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
866168	ARYLEFALGFLNED	NS5	2970	2984	HLA-DQA1*03:01/DQB1*03:02	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	1	0	0	0
867015	GSCVYNMMGKREKLL	NS5	2937	2951	HLA-DRB5*01:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
867376	KAYAQMWWSLMYFHRR	NS5	3246	3260	HLA-DRB5*01:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	0	1	0	0	0	0
868748	SAKLQWFVERNMVIP	NS5	2549	2563	HLA-DQA1*01:01/DQB1*05:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
869489	VKPIDDRFANALLAL	NS5	3157	3171	HLA-DPB1*01:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
869705	WYMWLGARYLEFEAL	NS5	2964	2978	HLA-DQA1*05:01/DQB1*02:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
195123	AGVFFTFVLLLSGQJ	NS2a	1159	1173	HLA-DRB1*07:01	>0% - 50%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	0	0	0	0	0	0	0
195457	HMIAGVFFTFVLLLS	NS2a	1156	1170	HLA-DRB1*11:01	>0% - 50%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	0	0	0	0	0	0	0
867116	IAGVFFTFVLLLSGQ	NS2a	1158	1172	HLA-DPB1*01:01	>0% - 50%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	0	0	0	0	0	0	0

The image displays a large grid of colored squares, representing a data visualization, likely a heatmap or a map of a city grid. The grid is composed of many small squares, each colored in one of five colors: red, green, yellow, orange, or grey. The colors are distributed across the grid in a pattern that suggests a spatial or temporal distribution of data. The red squares are concentrated in the top-left corner, while the green squares are concentrated in the top-right corner. The yellow and orange squares are scattered throughout the grid, and the grey squares are concentrated in the bottom-right corner. The overall pattern of the grid suggests a complex, non-linear relationship between the data points.

CD8 DENV-3 Epitopes

Epitope_ID	AA_Seq	Protein_Name	Start	End	Allele	step	Serotype	Method/Technique	Assay Group	Qualitative Measure	g strains from Mexico, (100%		DENV-3 constructs of vaccines					
											ACQ44481.1	ACQ44480.1	TV003	TDEN	DPIV	Dengvaxia	DENVax	TVDV
180390	CLMMMLPATL	C	104	113	HLA-A*02:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	1	1	1	0	0	0
180609	LMMMMLPATL	C	105	113	HLA-A*02:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	1	1	1	0	0	0
184264	LAKRFSRGL	C	29	37	HLA-B*08:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	1	1	1	0	0	0
184265	LAKRFSRGLL	C	29	38	HLA-B*08:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	1	1	1	0	0	0
185260	QAKRFSRG	C	28	36	HLA-B*08:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	1	1	1	0	0	0
183793	IMKIGIGVLL	E	452	461	HLA-B*08:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	1	1	1	1	0	1
183843	IQNSGGTSIF	E	131	140	HLA-B*15:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	1	0	1	0	0
184412	LKGMSYAMCL	E	156	165	HLA-B*08:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	1	1	1	1	1	1
184965	MVHQIFGSAY	E	713	722	HLA-B*15:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	1	1	1	1	1	1
186470	WIMKIGIGVL	E	451	460	HLA-B*08:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	1	1	1	1	0	1
185464	RPINEKEENM	NS1	1109	1118	HLA-B*35:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	1	1	1	0	0	0
183395	GKKHMIAGVL	NS2a	1153	1162	HLA-B*08:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	1	0	1	0	0	0
3124	AMKGLPIRY	NS3	1708	1716	HLA-B62	0%	Dengue virus 3	51 chromium	cytotoxicity	Positive	0	0	0	0	0	0	0	0
590435	TRVVAEMEAMKGLPI	NS3	1698	1714	HLA class I	0%	Dengue virus 3	ICS	IFNg release	Positive-Low	0	0	0	0	0	0	0	0
180788	TKRDLGMSK	NS4b	2250	2259	HLA-A*11:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	1	1	1	0	0	0
69612	VLLLVTHYA	NS4b	2353	2361	HLA-A2	0%	Dengue virus 3	ICS	IFNg release	Positive	0	0	1	0	1	0	0	0
180650	MEITAEWLW	NS5	2863	2871	HLA-B*58:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	1	1	1	0	0	0
180728	RPRCLTREEF	NS5	2879	2888	HLA-B*07:02	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	1	1	1	0	0	0
186127	TTWEDVPYL	NS5	3321	3329	HLA-A*02:01	0%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	0	0	1	0	0	0	0
32944	KPWDVWPTV	NS5	2819	2827	HLA class I	0%	Dengue virus 3	51 chromium	cytotoxicity	Positive	0	0	0	0	0	0	0	0
180577	KSGAIKVLK	C	74	82	HLA-A*11:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	0	1	0	0	0	0
184260	LAIPPTAGVL	C	57	66	HLA-B*08:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
184845	MLKRVNRNV	C	15	23	HLA-B*08:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
180464	FTILALFLAH	PreM	247	256	HLA-B*35:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1
180504	HPGFTILALF	PreM	244	253	HLA-B*35:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1
184658	LTQKVVFIL	PreM	262	271	HLA-B*08:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1
185685	SLFKTAGSG	PreM	136	144	HLA-B*08:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1
13119	ELKGMYSYAM	E	155	163	HLA-B*08:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	0
15796	FFDLPLPWT	E	211	219	HLA-A2	100%	Dengue virus 3	ICS	IFNg release	Positive	1	1	1	1	1	1	1	1
180613	LPEEQDQNY	E	82	90	HLA-B*35:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	0	1	0	1	1	1
180657	MLVTPSMTM	E	273	281	HLA-B*35:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	1	0	0	0
184299	LATRKLKCI	E	53	61	HLA-B*08:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1
184536	LPEYGLGLE	E	453	462	HLA-B*35:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	1
184568	LPWTSGATT	E	496	504	HLA-B*35:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	0	1
184924	MSYAMCTNTF	E	575	584	HLA-B*35:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	0	0	0	0	0	0
185419	RLKMDKLEL	E	148	156	HLA-B*08:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	1	1	0
186029	TPTWNRKEL	E	226	234	HLA-B*07:02	100%	Dengue virus 3	ELISPOT	IFNg release	Positive-Low	1	1	0	1	0	1	1	1
589817	SGATWVDVLEHGGCV	E	268	283	HLA class I	100%	Dengue virus 3	ICS	IFNg release	Positive-High	1	1	1	1	1	1	1	1
150537	RPGVHTQTA	NS1	1030	1038	HLA-B*07:02	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
150546	RSCTLPPLRY	NS1	1087	1096	HLA-A*01:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
180738	RYMGEDGCWY	NS1	1095	1104	HLA-A*24:02	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
182939	EKEENMVKSL	NS1	1113	1122	HLA-B*08:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
183723	IKLTVVVDGI	NS1	857	866	HLA-B*08:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
184585	LRTTIVSGKL	NS1	64	73	HLA-B*08:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
185573	RYMGEDGCW	NS1	1095	1103	HLA-A*24:02	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
185734	SPKRLATAI	NS1	811	819	HLA-B*08:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
184254	LAILFEVVM	NS2a	1140	1148	HLA-B*35:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
185978	TMGVLCLAI	NS2a	1134	1143	HLA-B*08:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	0	1	0	0	0
186175	TWRDMAHTLI	NS2a	1174	1183	HLA-A*24:02	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
180622	LPWWLAHKVA	NS3	226	235	HLA-B*35:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
182917	EKDFDAAGR	NS3	2083	2091	HLA-A*33:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
184065	KLNDWDFV	NS3	399	407	HLA-A*02:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive-High	1	1	1	1	1	0	0	0
186234	VEIWTKEGK	NS3	2053	2062	HLA-B*40:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0

19434	GESRKTFVE	NS3	2001	2009	HLA-B7	100%	Dengue virus 3	51 chromium	cytotoxicity	Positive	1	1	1	1	1	0	0	0
19435	GESRKTFVEL	NS3	211	220	HLA-B*40:01	100%	Dengue virus 3	ICS	IFNg release	Positive	1	1	1	1	1	0	0	0
22820	GTSGSPINR	NS3	133	142	HLA-A*11:01	100%	Dengue virus 3	51 chromium	cytotoxicity	Positive	1	1	1	1	1	0	0	0
22821	GTSGSPINRE	NS3	133	143	HLA-A11	100%	Dengue virus 3	ICS	IFNg release	Positive	1	1	1	1	1	0	0	0
34605	KYTDRKWCF	NS3	240	248	HLA-A24	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
62183	SVKKDLISY	NS3	71	79	HLA-B62	100%	Dengue virus 3	51 chromium	cytotoxicity	Positive	1	1	1	1	1	0	0	0
183165	FFMMVLLIPE	NS4a	2205	2214	HLA-A*33:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
37494	LLGLMILL	NS4a	2148	2156	HLA-A2	100%	Dengue virus 3	ICS	IFNg release	Positive	1	1	1	1	1	0	0	0
180381	ATGPITTLW	NS4b	2439	2447	HLA-B*58:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
183796	IMKSVGTGK	NS4b	2481	2489	HLA-A*03:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
37534	LLLMRTSWA	NS4b	2423	2431	HLA-A2	100%	Dengue virus 3	biological activity	proliferation	Positive	1	1	1	1	1	0	0	0
1067501	KPIDDRFAN	NS5	3158	3166	HLA-B*07:02	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
180572	KPRLCTREEF	NS5	2879	2888	HLA-B*07:02	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	0	0	0	0	0	0
180678	MVSRLLLNR	NS5	2723	2731	HLA-A*11:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
180737	RYLEFEALGF	NS5	2971	2980	HLA-A*24:02	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
180801	VMGITAEWLW	NS5	2862	2871	HLA-B*53:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	0	0	0	0	0	0
182553	ALLALNDMGK	NS5	3167	3176	HLA-A*03:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
185710	SMINGVVKL	NS5	318	326	HLA-A*02:01	100%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	1	1	1	1	0	0	0
183587	HMIAGVFTF	NS2a	368	377	HLA-A*24:02	>0% - 50%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	0	0	0	0	0	0	0
184819	MIAGVFTF	NS2a	369	377	HLA-B*35:01	>0% - 50%	Dengue virus 3	ELISPOT	IFNg release	Positive	1	0	0	0	0	0	0	0
186215	VEDEDFWKL	NS5	2915	2923	HLA-B*40:01	>0% - 50%	Dengue virus 3	ELISPOT	IFNg release	Positive	0	1	0	0	0	0	0	0