

SHIV1157.S										YQHLWRGWRGIMLLGMLMICSASEKLWVTVYGVVWKEAKTTLFCASNAYEKEVHNIWATHACVPTDNPQEIVLGNVTENFNMWKNMVDQMHEDIISLWDQSLKPCVKLTSLCVTLKCSNFTGKSNVTYKGDMEVKNCSFNVTTTEIRDKKQKVYALFYRLDITPLDDNSSEYILINCNSSTITQACPKVNFDP										201																																																											
SHIV1157.S.01																																																																															
SHIV1157.S.02																																																																															
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SHIV1157.w27.15																														R																																																	
SHIV1157.w27.16																																																																															
SHIV1157.w214.01										D										N										V-E-G-F-N-AT										L-R-RA										T										L																			
SHIV1157.w214.02										D										N										V-E-G-F-N-AT										L-R-RA										T										L																			
SHIV1157.w214.03										D										N										V-E-G-F-N-AT										L-R-RA										T										L																			
SHIV1157.w214.04										D										N										V-E-G-F-N-AT										L-R-RA										T										L																			
SHIV1157.w214.05										G										N										V-E-G-F-N-AT										L-R-RT										T										L																			
SHIV1157.w214.06										D										N										V-E-G-F-N-AT										L-R-RA										T										L																			
SHIV1157.w214.07										D										N										V-K-G-F-N-AT										L-RA										T										L																			
SHIV1157.w214.08										D										N										V-E-G-F-N-AT										L-RA										T										L																			
SHIV1157.w214.09										V										G-N										V-E-G-F-N-AT										L-RA										T										L																			
SHIV1157.w214.10										D										N										V-E-G-F-HN-AT										L-RA										T										L																			
SHIV1157.w214.11										D										N										V-E-GKF-N-AT										L-R-RA										T										L																			
SHIV1157.w214.12										D										N										V-E-G-F-N-AT										L-RA										T										L																			
SHIV1157.w214.13										G										N										V-E-G-F-HN-AT										L-R-RA										T										L																			
SHIV1157.w214.14										D										N										V-E-G-F-N-AT										L-R-RA										T										L																			
SHIV1157.w214.15										D										N										V-E-G-F-N-AT										L-R-R										T										L																			
SHIV1157.w214.16										D										N										R-V-E-G-F-N-AT										L-R-RA										T										L																			
SHIV1157.w214.17										D										N										V-E-G-F-N-AT										L-R-RA										T										L																			
SHIV1157.w214.18										D										N										V-E-G-F-N-AT										L-R-RA										T										L																			
SHIV1157.w214.19										Q										N										R-V-E-G-F-N-AT										L-R-RA										T										L																			
SHIV1157.w214.20										D										N										V-E-G-F-N-AT										L-R-RA										T										L																			
SHIV1157.w214.21										D										N										V-E-F-N-AT										L-RA										T										L																			
SHIV1157.w214.22										N																				N-V-E-D-F-N-AT										L-R-RA										T										L																			
SHIV1157.w214.23										G										D										N										V-E-F-N-AT										L-RA										T										L									
SHIV1157.w350.01										N										D										D-N										R-KDLNTT...-QKAT										L-RA										EG-T										L									
SHIV1157.w350.02										L										N										D										N-R-A-.....-QEAT										L-RA										T										L									
SHIV1157.w350.03										L										N										D										R-KDLNTTY...QRDNFT										L-RA										G-N-T										L									
SHIV1157.w350.04										L										N										D										R-A-.....-QEAT										L-RA										G										T									
SHIV1157.w350.05										N										D										N										R-KDLNTTY...QRDNFT										L-RA										G-N-T										L									
SHIV1157.w350.06										N										D										N										R-KDLNTTY...QRDNFT										L-RA										G-N-T										L									
SHIV1157.w350.07										I										N										E										N-DV-R-N-SIHD-AT										L-RA										G										T									
SHIV1157.w350.08										N										D										N										R-KDLNTTY...QRDNFT										L-RA										G-N-T										L									
SHIV1157.w350.09										N										D										N										R-KDLNTTY...QRDNFT										L-RA										G-N-T										L									
SHIV1157.w350.10										H										N										D										R-KDLNTTY...QRDNFT										L-RA										G-N-T										L									
SHIV1157.w350.11										N										D										D										R-KDLNTT...-QKAT										L-RA										EG-T										L									
SHIV1157.w350.12										L										N										E-N										R-A-.....-QEAT										L-RA										T										L									
SHIV1157.w350.13										L										N										D										N-DV-R-N-SIHD-AT										L-RA										G										T									
SHIV1157.w350.14										L										N										D										R-V-R...DNFT										L-RA										T										L									
SHIV1157.w350.15										L										N										I										R-A-.....-QEAT										L-RA										EG-T										L									
SHIV1157.w350.16										N										D										D										E-V-.....DNFT										L-RA										EG-T										L									

		Loop D		V3		CD4-binding loop		V4				
SHIV1157.S	PIHYCAPAGYAILKCNNKTFNGTGPCHNVSTVQCTHG	GIKPVVSTQLLNGSLAEGEIIIRSEN	LT	DNVKTIIIVHF	NESVEITCTRPNNNTRKSSISIGPGQAI	YATGDIIGDIRQAHCN	ISKENWNKTLQWVRGKLKEHFPNKTI	VFKPSSGGDLEITTHSFNCRGEFFYCN	TSKLFNSTDNSTHMGTE	NTIIITIPCR	IKQ	402
SHIV1157.S.01												
SHIV1157.S.02												
SHIV1157.S.03		-V-										
SHIV1157.S.04												
SHIV1157.S.05												
SHIV1157.S.06												
SHIV1157.S.07												
SHIV1157.S.08												
SHIV1157.S.09												
SHIV1157.S.10												
SHIV1157.w27.01												
SHIV1157.w27.02												
SHIV1157.w27.03												
SHIV1157.w27.04												
SHIV1157.w27.05												
SHIV1157.w27.06												
SHIV1157.w27.07						-S-						
SHIV1157.w27.08												
SHIV1157.w27.09												
SHIV1157.w27.10												
SHIV1157.w27.11												
SHIV1157.w27.12												
SHIV1157.w27.13												
SHIV1157.w27.14										-G-		
SHIV1157.w27.15					-N-							
SHIV1157.w27.16						-E-			-K-			
SHIV1157.w214.01		E		L		R				D	D	.
SHIV1157.w214.02		E	-D-	L		R				D	D	.
SHIV1157.w214.03		E	-D-	L		R				N-G	D	D
SHIV1157.w214.04		E	-D-	L		R					D	D
SHIV1157.w214.05		E	-D-	L		R					D	D
SHIV1157.w214.06		E		L		R					D	D
SHIV1157.w214.07		E		L		R					D	D
SHIV1157.w214.08		E		L		R					D	D
SHIV1157.w214.09		E		L		R					D	D
SHIV1157.w214.10		E		L		R					R	D
SHIV1157.w214.11		E		L		R					D	D
SHIV1157.w214.12		E		L		R					R	D
SHIV1157.w214.13		E	-D-	L		R					D	D
SHIV1157.w214.14		E	-D--N-	L		R					N-HM...	D
SHIV1157.w214.15		E		L		R					N	D
SHIV1157.w214.16		E		L		R					D	D
SHIV1157.w214.17		E	A	L		R					R	D
SHIV1157.w214.18		E	A			R						D
SHIV1157.w214.19		E		L--G-		R					R	D
SHIV1157.w214.20		E	-D-	L		R					D	D
SHIV1157.w214.21		E		L		R					D-G	D
SHIV1157.w214.22		E		L		R					D	D
SHIV1157.w214.23		E		L		R					R	D
SHIV1157.w350.01		E		L-KA		R					IYIDA	D
SHIV1157.w350.02		E		L	-S-	R					G-IYIDA	D
SHIV1157.w350.03		E		LKD		R					IYIDA	D
SHIV1157.w350.04		E		L		R					IYIDA	D
SHIV1157.w350.05		E		L-KA		R					G-IYIDA	D
SHIV1157.w350.06		E		LKD		R					IYIDA	D
SHIV1157.w350.07		E		L		R					E-G	D
SHIV1157.w350.08		E		L-KAI		R					IYIDA	D
SHIV1157.w350.09		E		LKD		R					G-IYIDA	D
SHIV1157.w350.10		E		L-KAI		R					IYIDA	D
SHIV1157.w350.11		E		L-KA		R					IYIDA	D
SHIV1157.w350.12		E		L		R					G-IYIDA	D
SHIV1157.w350.13		E		L		R					G-IDA	D
SHIV1157.w350.14		E		L		R					G-IYIDA	D
SHIV1157.w350.15		E		L-KA		R					IYIDA	D
SHIV1157.w350.16		E		L-KA		R					IYIDA	D

		V5	gp120	gp41		gp120-gp41 interface	
SHIV1157.S	IINMWQEVGRAMYAPPIEGNITCKSNITGLLLVRDGGWDNSTNDTETFRPGGGDMRDNRSELYKYKVVEVKPLGIAPTAKAKRRVVEREKR			AVGIGAVFLGFLGAAGSTMGAASITLTVQARQLLSGIVQQQDNLLRAIEAQQHMLQLTVWGIKQLQARVLAIERYLQDQQLLGIWGC	SGKLICTTAVPWNDSWSNKSQTD	603	
SHIV1157.S.01							
SHIV1157.S.02							
SHIV1157.S.03							
SHIV1157.S.04							
SHIV1157.S.05							
SHIV1157.S.06							
SHIV1157.S.07							
SHIV1157.S.08							
SHIV1157.S.09							
SHIV1157.S.10							
SHIV1157.w27.01							
SHIV1157.w27.02							
SHIV1157.w27.03							
SHIV1157.w27.04							
SHIV1157.w27.05							
SHIV1157.w27.06							
SHIV1157.w27.07							
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SHIV1157.w27.16							
SHIV1157.w214.01							
SHIV1157.w214.02							
SHIV1157.w214.03							
SHIV1157.w214.04							
SHIV1157.w214.05							
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SHIV1157.w214.07							
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SHIV1157.w214.23							
SHIV1157.w350.01							
SHIV1157.w350.02							
SHIV1157.w350.03							
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SHIV1157.w350.13							
SHIV1157.w350.14							
SHIV1157.w350.15							
SHIV1157.w350.16							

gp120-gp41 interface

SHIV1157.S	IWENMTWMQWDREISRHTDTIYRLLEDSQNQQEKNEKDLLALDSWKNLWNWFSITRWLWYIKIFIMIVGGLIGLRIIFAVLSIVNRVRQGYSPLSFQTHLPLPRGADRPEGIEEEGGERDRDRSIRLVTGSLALIWDLLRSLCLFSYHRLRDLILLIVTRTVELLGRRGWEALKYWWNLLLYWSQELKNSAVSLLNATAIAV	804
SHIV1157.S.01		N
SHIV1157.S.02		
SHIV1157.S.03		
SHIV1157.S.04		
SHIV1157.S.05		
SHIV1157.S.06		
SHIV1157.S.07		M
SHIV1157.S.08		
SHIV1157.S.09		
SHIV1157.S.10		G
SHIV1157.w27.01		
SHIV1157.w27.02		
SHIV1157.w27.03		I
SHIV1157.w27.04		
SHIV1157.w27.05		
SHIV1157.w27.06		
SHIV1157.w27.07		
SHIV1157.w27.08		
SHIV1157.w27.09		
SHIV1157.w27.10		
SHIV1157.w27.11		
SHIV1157.w27.12		R
SHIV1157.w27.13		
SHIV1157.w27.14		
SHIV1157.w27.15		R
SHIV1157.w27.16	I	K E E G
SHIV1157.w214.01		E K P V R
SHIV1157.w214.02		E P R
SHIV1157.w214.03		E K P R
SHIV1157.w214.04	I	E K P R
SHIV1157.w214.05		E A P T R
SHIV1157.w214.06		E K P R
SHIV1157.w214.07		E K P R
SHIV1157.w214.08		E K P R
SHIV1157.w214.09		E K P R
SHIV1157.w214.10	I	E K M P R I
SHIV1157.w214.11		E P T R
SHIV1157.w214.12		E P R
SHIV1157.w214.13		E I QP R
SHIV1157.w214.14		E P T R
SHIV1157.w214.15	K	E RVG M N R
SHIV1157.w214.16	I	E P R
SHIV1157.w214.17	W S	E SG M P T R
SHIV1157.w214.18		E K P R
SHIV1157.w214.19		E K P R
SHIV1157.w214.20		E K P K R
SHIV1157.w214.21		E K G P E R V
SHIV1157.w214.22		E K P R
SHIV1157.w214.23		E K M P R
SHIV1157.w350.01		E E SK T G I R
SHIV1157.w350.02		E E SK M T G I R
SHIV1157.w350.03		E E SK T G I R
SHIV1157.w350.04		E E SK T G I R
SHIV1157.w350.05		E E SK T G I R
SHIV1157.w350.06	I	E E K T G I R
SHIV1157.w350.07	I	E E K P E T G I R
SHIV1157.w350.08		E E SK T G I N R
SHIV1157.w350.09		E E SK T G I R
SHIV1157.w350.10		E E SK G T G I R
SHIV1157.w350.11		E E SK T G I R
SHIV1157.w350.12		E E SK T G I R
SHIV1157.w350.13	KY	E E K P G R
SHIV1157.w350.14		E E SK L T G I R
SHIV1157.w350.15		E E SK T G I R
SHIV1157.w350.16		E E SK T G I R