

Table S4. Provirus_and_plasmid_detections

Table S4-1. VLP_provirus_genomad

seq_name	n_genes_with_taxonomy	agreement	taxid	lineage
S17_vs_110666 provirus_6805_70348	58	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S9_vf_13507 provirus_13823_120230	88	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S9_vs_46498 provirus_1704_20897	20	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S9_vs_67792 provirus_23562_67089	41	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S9_vs_90727 provirus_109214_150749	38	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S11_vs_45658 provirus_1_50991	48	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S11_vs_48109 provirus_19503_33025	11	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S11_vs_48109 provirus_37443_52410	17	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S11_vs_82331 provirus_1_39593	24	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S13_vs_9438 provirus_1_26027	15	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S13_vs_23314 provirus_1_43630	42	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S13_vs_26756 provirus_1_36490	34	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S13_vs_30101 provirus_4484_51177	33	0.9912	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S13_vs_30167 provirus_1_53839	46	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S13_vs_33947 provirus_1_26796	14	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S13_vs_35816 provirus_9638_57224	59	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S13_vs_45488 provirus_49188_88826	27	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S13_vs_67429 provirus_51626_91295	36	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S13_vs_114213 provirus_1_28952	23	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S14_vs_66139 provirus_119631_178690	40	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S14_vs_66208 provirus_10049_67174	49	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S14_vs_96111 provirus_1_24143	26	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S14_vs_74067 provirus_149062_181135	27	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S14_vs_74067 provirus_193206_252822	56	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S14_vs_9162 provirus_77661_102634	28	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S14_vs_112345 provirus_25548_38263	8	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S14_vs_39266 provirus_8204_37426	25	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S14_vs_2870 provirus_1_47896	42	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S14_vs_32499 provirus_16787_41581	28	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S14_vs_25852 provirus_1_35257	9	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S14_vs_25852 provirus_71427_107963	13	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S14_vs_11510 provirus_1_37329	10	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S14_vs_78164 provirus_1_33442	35	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S14_vs_70985 provirus_15261_57392	12	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S14_vs_70985 provirus_96748_158000	14	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S1_vs_117317 provirus_1_31247	49	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S3_vf_106401 provirus_6294_39808	21	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S3_vs_119605 provirus_10462_56346	45	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S3_vs_9158 provirus_1_28511	24	0.9779	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S3_vs_64424 provirus_1_35095	28	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S3_vs_17168 provirus_62162_103365	30	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S3_vs_42569 provirus_1_55470	64	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S3_vs_18858 provirus_7640_40921	21	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S3_vs_68031 provirus_1_31195	35	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S3_vs_6604 provirus_44093_78643	21	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S3_vs_70508 provirus_10985_57171	30	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S3_vs_117894 provirus_1_42562	23	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S5_vs_30490 provirus_19631_56501	24	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S5_vs_109527 provirus_86293_134147	16	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S5_vs_123256 provirus_35835_71330	29	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S5_vs_117319 provirus_37947_108449	65	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S5_vs_79992 provirus_1_37142	42	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S5_vs_20500 provirus_26729_71704	33	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S5_vs_3501 provirus_235_23805	21	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S5_vs_124677 provirus_1_41828	41	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S5_vs_130294 provirus_21565_31442	9	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S5_vs_80496 provirus_58106_119911	51	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S5_vs_142195 provirus_1_52517	17	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S5_vs_9747 provirus_14158_64437	20	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S5_vs_21778 provirus_68731_157098	14	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S5_vs_131510 provirus_92040_133423	42	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S5_vs_46394 provirus_33205_42387	9	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S5_vs_40848 provirus_22909_78371	40	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S5_vs_72532 provirus_8356_50725	36	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S5_vs_77593 provirus_49321_99338	54	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S5_vs_138980 provirus_1_47926	40	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S5_vs_74199 provirus_14632_30526	9	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S5_vs_76500 provirus_1_36552	29	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S7_vf_36627 provirus_69_11085	11	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S7_vs_11081 provirus_1_46169	41	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S7_vs_16344 provirus_1_34983	32	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S7_vs_47050 provirus_1_34528	29	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S7_vs_49426 provirus_19260_57556	30	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S7_vs_51332 provirus_1_12316	11	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S7_vs_97737 provirus_53372_63197	9	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S7_vs_119679 provirus_14434_51206	39	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S16_vs_19968 provirus_18399_54417	27	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S16_vs_32764 provirus_43014_55386	7	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S16_vs_34021 provirus_1_29929	29	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S16_vs_48714 provirus_9547_23424	5	0.9272	8016	Viruses;Monodnaviria;Loebvirae;Hofneiviricota;Faserviricetes;Tubulavirales;Inoviridae
S16_vs_82116 provirus_1_40122	45	0.9942	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S16_vs_89511 provirus_1_61265	42	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S16_vs_101072 provirus_6845_31451	27	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S16_vs_107235 provirus_1_37912	35	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S16_vs_132979 provirus_1_22166	19	0.9814	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S16_vs_140468 provirus_7020_20506	12	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S16_vs_141218 provirus_1_41081	30	0.9878	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S16_vs_142561 provirus_46226_82728	33	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S10_vs_14557 provirus_24735_75557	31	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S12_vf_60224 provirus_3687_54526	45	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S12_vs_71525 provirus_5502_31779	16	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S12_vs_142625 provirus_29520_70930	33	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S12_vs_26336 provirus_16576_67092	16	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S12_vs_121913 provirus_20147_123530	81	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S12_vs_153780 provirus_11265_61281	31	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S12_vs_123620 provirus_40480_78363	29	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S12_vs_133070 provirus_55125_132222	44	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S12_vs_172379 provirus_92122_132266	25	0.9882	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S12_vs_23796 provirus_1_38428	33	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S15_vs_42043 provirus_134410_193486	49	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S15_vs_43913 provirus_11358_44889	34	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes

S15_vs_71968 provirus_18124_39396	17	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S2_vs_10289 provirus_7396_46594	37	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S6_vs_9784 provirus_9084_47596	38	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S6_vs_54606 provirus_1_21709	30	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S6_vs_29152 provirus_10612_64693	57	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S6_vs_10314 provirus_44149_83752	42	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S6_vs_1146 provirus_1_36227	36	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S6_vs_46039 provirus_1_38172	12	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S6_vs_46039 provirus_69634_111911	14	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S6_vs_34453 provirus_4536_65412	58	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S6_vs_39025 provirus_18844_51286	38	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S6_vs_39065 provirus_14912_41773	9	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S8_vf_28956 provirus_172_25419	22	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S8_vf_12212 provirus_3_31196	31	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S8_vf_170878 provirus_6035_59917	54	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S8_vs_149700 provirus_19406_69356	42	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S8_vs_115958 provirus_68174_127950	45	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S8_vs_125717 provirus_34678_52956	23	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S8_vs_4153 provirus_1_12586	10	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S8_vs_47265 provirus_19038_69505	46	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S8_vs_179208 provirus_1_52017	20	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S8_vs_205257 provirus_1_42712	28	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes

Note:
Provirus integrated into plasmid

Table S4-2. WMS_provirus_genomad

seq_name	n_genes_with_taxonomy	agreement	taxid	lineage
S9-wms-combined_64277 provirus_1_50273	40	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S9-wms-combined_53991 provirus_1_38377	39	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S9-wms-combined_97755 provirus_1_31801	35	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S9-wms-combined_33230 provirus_1_29168	30	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S9-wms-combined_124857 provirus_24439_80893	56	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S9-wms-combined_28805 provirus_23826_59739	38	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S9-wms-combined_93232 provirus_5433_50669	48	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S9-wms-combined_109322 provirus_1_43439	37	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S9-wms-combined_29611 provirus_307713_413955	93	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S9-wms-combined_20485 provirus_49228_90295	46	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S9-wms-combined_9931 provirus_43028_90630	39	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S9-wms-combined_37587 provirus_1_47703	32	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S9-wms-combined_5526 provirus_1_38027	32	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S9-wms-combined_76274 provirus_3258_36781	35	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S11-wms-combined_193148 provirus_8658_39231	9	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S11-wms-combined_179605 provirus_18936_43615	24	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S11-wms-combined_83571 provirus_9777_40621	36	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S11-wms-combined_125176 provirus_1_23922	22	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S11-wms-combined_236214 provirus_60975_93358	29	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S11-wms-combined_264050 provirus_28059_77647	49	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S11-wms-combined_140009 provirus_19523_54887	37	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S11-wms-combined_168048 provirus_1_41217	31	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S11-wms-combined_3507 provirus_29062_70964	52	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S11-wms-combined_101337 provirus_1_25287	19	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S11-wms-combined_73204 provirus_23691_55764	27	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S11-wms-combined_198512 provirus_3772_41546	31	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S11-wms-combined_267993 provirus_1_65458	54	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S11-wms-combined_116589 provirus_12509_25615	10	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S11-wms-combined_48246 provirus_1_44551	43	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S11-wms-combined_63818 provirus_8325_62965	45	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S11-wms-combined_215723 provirus_1_42332	30	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S11-wms-combined_92114 provirus_1_26924	20	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S11-wms-combined_120257 provirus_8529_35507	33	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S11-wms-combined_217790 provirus_1_43023	13	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S11-wms_32691 provirus_3_142121	9	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S1-wms-combined_52708 provirus_6059_16025	9	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S1-wms-combined_68998 provirus_3499_56973	63	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S1-wms-combined_102801 provirus_3620_28850	7	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S1-wms-combined_302166 provirus_11917_75458	42	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S1-wms-combined_285012 provirus_1_46216	53	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S1-wms-combined_220022 provirus_1_85675	4	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S1-wms-combined_220022 provirus_128734_155946	4	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S1-wms-combined_23248 provirus_27603_62426	36	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S1-wms-combined_304377 provirus_1_66513	60	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S1-wms-combined_57370 provirus_1_21189	19	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S1-wms-combined_107766 provirus_1_36184	27	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S1-wms-combined_92523 provirus_13796_31793	13	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S1-wms-combined_331544 provirus_1_23231	21	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S1-wms-combined_85225 provirus_1_39579	48	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S1-wms-combined_136097 provirus_8755_19804	10	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S1-wms-combined_307323 provirus_1_42035	40	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S1-wms-combined_94988 provirus_10302_22992	10	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S5-wms-combined_18356 provirus_1_22757	23	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S5-wms-combined_161191 provirus_134452_157515	44	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S5-wms-combined_134381 provirus_32274_74956	57	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S5-wms-combined_90315 provirus_11740_73154	59	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S5-wms-combined_134743 provirus_30511_101552	44	0.9919	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S5-wms-combined_72410 provirus_71571_129551	66	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S5-wms-combined_206050 provirus_15780_57403	41	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S5-wms-combined_108794 provirus_19443_74905	40	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S5-wms-combined_207291 provirus_13547_57653	31	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S5-wms-combined_29447 provirus_1_32335	37	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S5-wms-combined_83370 provirus_1_42289	36	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S5-wms-combined_66662 provirus_52916_98874	33	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S5-wms-combined_59064 provirus_35170_77093	42	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S5-wms-combined_94482 provirus_9030_59881	34	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S5-wms-combined_67650 provirus_42189_77684	29	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S5-wms-combined_94786 provirus_4677_40532	25	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S5-wms-combined_210959 provirus_13002_159070	27	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S5-wms-combined_78434 provirus_1_90452	15	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S5-wms-combined_98202 provirus_1_61764	20	0.9818	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S5-wms-combined_26971 provirus_4471_34173	35	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S5-wms-combined_178432 provirus_1_33423	25	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S5-wms-combined_179241 provirus_5356_19361	9	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S5-wms-combined_117213 provirus_1_35094	35	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S5-wms_94965 provirus_4329_41461	34	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S7-wms-combined_71592 provirus_9021_38751	32	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S7-wms-combined_20921 provirus_1_139822	92	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S7-wms-combined_62119 provirus_55121_129634	73	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S7-wms-combined_185016 provirus_8013_41583	35	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S7-wms-combined_174935 provirus_1_23182	22	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S7-wms-combined_134458 provirus_1_46614	49	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S7-wms-combined_2122 provirus_17514_50765	28	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S7-wms-combined_135154 provirus_1_28157	17	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S7-wms-combined_238231 provirus_41225_71249	26	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S7-wms-combined_43950 provirus_8198_57129	41	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S7-wms-combined_3697 provirus_66701_124033	46	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S7-wms-combined_157260 provirus_19304_75227	58	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S7-wms-combined_74829 provirus_2475_38322	29	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S7-wms-combined_14267 provirus_25528_51357	23	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S7-wms-combined_167867 provirus_1_81146	11	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S7-wms-combined_106253 provirus_1_36567	28	0.9688	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S7-wms-combined_14529 provirus_20870_62786	27	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S7-wms-combined_137858 provirus_28744_38569	9	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S7-wms-combined_5625 provirus_26522_67320	41	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S7-wms-combined_190281 provirus_28520_63064	33	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S7-wms-combined_26217 provirus_37948_88555	44	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S7-wms-combined_7205 provirus_1_62239	58	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S7-wms-combined_72070 provirus_3771_55473	32	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S7-wms-combined_136642 provirus_1_17488	21	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S7-wms-combined_147158 provirus_1_43742	42	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S7-wms-combined_218379 provirus_3331_36800	28	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes

S7-wms-combined_107679_0 provirus_1_37921	39	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S7-wms-combined_107679_1 provirus_4391_36183	18	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S17-wms-combined_233761 provirus_1_38860	25	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S17-wms-combined_56006 provirus_18810_96019	60	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S17-wms-combined_56061 provirus_96601_107131	9	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S17-wms-combined_2234 provirus_16885_70511	61	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S17-wms-combined_203701 provirus_1_59819	21	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S17-wms-combined_247494 provirus_1_40245	36	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S17-wms-combined_126774 provirus_33403_66657	6	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S17-wms-combined_248321 provirus_1_64257	60	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S17-wms-combined_248321 provirus_78214_127137	61	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S17-wms-combined_193958 provirus_41974_101082	50	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S17-wms-combined_259811 provirus_1_48861	60	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S17-wms-combined_185239 provirus_13026_23450	4	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S17-wms-combined_186314 provirus_28354_68895	54	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S17-wms-combined_162786 provirus_1_130535	29	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S17-wms-combined_95360 provirus_1_43743	30	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S17-wms-combined_199746 provirus_311_40236	41	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S12-wms-combined_334806 provirus_1_39697	21	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S12-wms-combined_184338 provirus_7702_50077	45	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S12-wms-combined_368462 provirus_3828_55485	40	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S12-wms-combined_201125 provirus_169478_224193	46	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S12-wms-combined_368562 provirus_5352_23237	11	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S12-wms-combined_117628 provirus_37358_58691	22	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S12-wms-combined_17617 provirus_14012_54837	45	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S12-wms-combined_51076 provirus_1_52990	7	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S12-wms-combined_51076 provirus_63671_110930	11	0.9503	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S12-wms-combined_151843 provirus_1_54070	53	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S12-wms-combined_18287 provirus_31039_78190	48	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S12-wms-combined_2450 provirus_49617_81938	36	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S12-wms-combined_320727 provirus_43373_74615	26	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S12-wms-combined_320727 provirus_86494_158985	72	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S12-wms-combined_371541 provirus_27093_40221	11	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S12-wms-combined_120133 provirus_1_28638	29	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S12-wms-combined_189323 provirus_1_38428	33	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S12-wms-combined_256299 provirus_6861_53411	38	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S12-wms-combined_156234 provirus_1_28774	30	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S12-wms-combined_23517 provirus_1_43179	61	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S12-wms-combined_375343 provirus_1_29654	26	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S12-wms-combined_358010 provirus_6040_57083	36	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S12-wms-combined_358797 provirus_1_26270	22	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S12-wms-combined_359190 provirus_24842_64793	34	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S12-wms-combined_328554 provirus_9763_43415	32	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S12-wms-combined_329242 provirus_1_27761	6	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S12-wms-combined_313953 provirus_1_52155	31	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S12-wms-combined_111524 provirus_1_48545	17	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S12-wms-combined_297545 provirus_1_54974	66	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S12-wms-combined_129799 provirus_25526_72680	52	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S12-wms-combined_282594 provirus_1_43487	25	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S12-wms-combined_147628 provirus_1_66934	47	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S12-wms-combined_264845 provirus_13087_19738	5	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S12-wms-combined_299293 provirus_20365_74597	49	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S12-wms-combined_98046 provirus_43964_89205	38	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S12-wms-combined_31761 provirus_4908_40932	30	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S12-wms-combined_368190 provirus_4987_62142	68	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S12-wms-combined_168259 provirus_1_29820	12	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S12-wms-combined_270839 provirus_3921_42253	29	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S12-wms_161239 provirus_5587_25370	24	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S2-wms-combined_196783 provirus_1_43247	38	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S2-wms-combined_62519 provirus_6893_41704	41	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S2-wms-combined_135139 provirus_1_34436	9	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S2-wms-combined_218002 provirus_41237_76226	35	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S2-wms-combined_135154 provirus_11137_34738	13	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S2-wms-combined_93845 provirus_1_41258	39	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S2-wms-combined_52568 provirus_1_46833	39	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S2-wms-combined_166665 provirus_1_31971	32	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S2-wms-combined_229529 provirus_28533_87711	49	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S2-wms-combined_84608 provirus_18423_96376	30	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S2-wms-combined_74387 provirus_8639_47478	38	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S2-wms-combined_147065 provirus_99157_133534	36	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S2-wms-combined_137119 provirus_23866_96227	57	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S2-wms-combined_85381 provirus_1_35531	30	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S2-wms-combined_116221 provirus_11792_43877	36	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S2-wms-combined_116221 provirus_59302_90374	30	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S2-wms-combined_157934 provirus_4946_38145	38	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S2-wms-combined_13246 provirus_142843_195068	54	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S2-wms-combined_210822 provirus_1_50976	18	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S2-wms-combined_24549 provirus_1_19009	20	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S2-wms-combined_24549 provirus_52727_65681	13	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S2-wms-combined_170845 provirus_1_34623	30	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S2-wms-combined_159670 provirus_4693_36742	33	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S2-wms-combined_181391 provirus_93678_123498	27	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S2-wms-combined_200390 provirus_1_42588	37	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S2-wms-combined_57293 provirus_12687_28064	9	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S2-wms-combined_191613 provirus_1_40741	24	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S2-wms-combined_98888 provirus_46109_107937	81	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S2-wms-combined_181849 provirus_4199_47914	28	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S2-wms-combined_99446 provirus_17627_43104	25	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S2-wms-combined_25727 provirus_4849_37113	22	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S2-wms-combined_58121 provirus_18687_27276	5	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S2-wms-combined_140996 provirus_80993_146281	65	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S2-wms-combined_140996 provirus_204609_222314	14	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S2-wms-combined_222535 provirus_7864_38886	5	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S2-wms-combined_58563 provirus_21097_53508	35	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S2-wms-combined_110215 provirus_1_66879	60	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S2-wms-combined_5791 provirus_106816_143252	34	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S2-wms-combined_101826 provirus_12326_53091	34	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S2-wms-combined_122457 provirus_1_24741	30	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S2-wms-combined_185494 provirus_1_41920	29	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S2-wms-combined_225908 provirus_81930_115597	26	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S2-wms-combined_225908 provirus_180828_195686	7	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S2-wms-combined_227800 provirus_1_24245	25	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S2-wms-combined_143737 provirus_1_42150	35	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S2-wms-combined_7756 provirus_1_48340	17	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes

S2-wms_124416 provirus_5437_58906	48	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S2-wms_156439 provirus_1_21599	19	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S2-wms_107329 provirus_5393_52664	55	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S2-wms_130687 provirus_27517_69355	42	0.994	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S4-wms-combined_118531 provirus_26963_69321	33	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S4-wms-combined_22012 provirus_3895_27205	24	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S4-wms-combined_57123 provirus_1_36340	18	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S4-wms-combined_64632 provirus_24726_57119	38	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S4-wms-combined_113721 provirus_1_14776	10	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S4-wms-combined_57963 provirus_66556_101297	39	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S4-wms-combined_17284 provirus_1_54754	44	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S4-wms-combined_121978 provirus_55570_110001	44	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S4-wms-combined_25201 provirus_1_27684	32	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S4-wms-combined_41490 provirus_33118_73219	31	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S4-wms-combined_51079 provirus_1_19968	22	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S4-wms_50475 provirus_24295_99597	77	0.9974	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S6-wms-combined_41246 provirus_15790_40602	5	0.8534	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S6-wms-combined_135223 provirus_91822_139676	16	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S6-wms-combined_88414 provirus_44149_78550	41	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S6-wms-combined_82597 provirus_164408_202920	38	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S6-wms-combined_118427 provirus_96034_109457	12	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S6-wms-combined_118427 provirus_117014_176709	53	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S6-wms-combined_72228 provirus_24529_52555	15	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S6-wms-combined_119138 provirus_23040_55482	38	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S6-wms-combined_8508 provirus_1_42230	49	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S6-wms-combined_32530 provirus_8460_46060	35	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S6-wms-combined_126236 provirus_31179_69368	37	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S6-wms-combined_50721 provirus_71105_115106	43	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S6-wms-combined_138710 provirus_7149_17026	9	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S6-wms-combined_56464 provirus_1_23497	25	0.9875	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S6-wms-combined_91039 provirus_1_44817	38	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S8-wms-combined_215102 provirus_23618_66504	26	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S8-wms-combined_23583 provirus_43975_85815	41	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S8-wms-combined_48046 provirus_1_29855	22	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S8-wms-combined_26087 provirus_1_49451	33	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S8-wms-combined_72911 provirus_1_47687	33	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S8-wms-combined_49369 provirus_1_39890	24	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S8-wms-combined_74275 provirus_1_26939	25	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S8-wms-combined_270362 provirus_10571_69096	55	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S8-wms-combined_200168 provirus_1_66777	45	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S8-wms-combined_108917 provirus_9767_70457	48	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S8-wms-combined_40666 provirus_44493_71582	21	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S8-wms-combined_169835 provirus_34678_52956	23	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S8-wms-combined_68780 provirus_22210_73585	54	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S8-wms-combined_161181 provirus_9043_44282	39	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S8-wms-combined_246185 provirus_1_35887	11	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S8-wms_58515 provirus_15402_22507	6	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes
S8-wms_48935 provirus_1_52721	54	1	2561	Viruses;Duplodnaviria;Heunggongvirae;Uroviricota;Caudoviricetes

Note:

Provirus integrated into plasmid

Table S4-3. Plasmid_detection_genomad

VLP-HQ-vOTUs:

seq_name	length	topology	n_genes	genetic_code	plasmid_score	fdr	n_hallmarks	marker_enrichment
S16_vs_173141	3774	No terminal repeats	3	11	0.9899	NA	1	0.9293
S5_vs_109527	142384	No terminal repeats	133	11	0.9873	NA	0	9.1116
S17_vs_52890	60210	No terminal repeats	53	11	0.9832	NA	1	1.8946
S6_vs_46039	111911	No terminal repeats	121	11	0.9823	NA	2	0.0396
S14_vs_25852	107963	No terminal repeats	113	11	0.9815	NA	3	1.395
S12_vs_164056	6664	No terminal repeats	9	11	0.9612	NA	0	0.5113

MWS-HQ-vOTUs:

seq_name	length	topology	n_genes	genetic_code	plasmid_score	fdr	n_hallmarks	marker_enrichment
S6-wms-combined_135223	147913	No terminal repeats	138	11	0.9866	NA	0	9.7754
S1-wms-combined_394628	10807	No terminal repeats	13	11	0.9673	NA	0	1.1593
S2-wms-combined_233107	16186	No terminal repeats	16	11	0.9548	NA	1	0.4814
S2-wms-combined_115352	3640	No terminal repeats	6	11	0.9387	NA	0	1.196
S2-wms-combined_132966	4461	No terminal repeats	11	11	0.9346	NA	0	0.8148
S1-wms-combined_169788	4712	No terminal repeats	8	11	0.8482	NA	0	0.876

Note:

Provirus detected

conjugation_genes	amr_genes
NA	NA
NA	NA
NA	NA
MOBV	NF000153
MOBV	NA
NA	NA

conjugation_genes	amr_genes
B_traF	NA
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA