



Title	Interregional Coevolution Analysis Revealing Functional and Structural Interrelatedness between Different Genomic Regions in Human Mastadenovirus D
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Supplementary Table 1. Recombination events between *HAdV-D* genomes detected and statistically supported (p -value < 0.001) by at least three recombination detection methods in RDP 4

Recomb. Number	In_RDP File	In Alignment		Breakpoint Positions				Recombinant Sequence(s)	Minor Parental Sequence(s)	Major Parental Sequence(s)	RDP	GENECON	Bootscan	Detection Methods						
		Begin	End	Begin	End	Begin	End							Maxchi	Chinaera	SiScan	PhyPro	LARI	3Seq	
1	1	1011*	29384	1011*	29384	1011*	29384	HAdV23_37 8 (AB605242) HAdVGT53 (AB605243) PI	HAdV22_37 (AB605240)	Unknown(HAdV37 (AB448776)) Unknown(HAdVGT64 (EF121005))	3.9E-151	1.4E-126	1.1E-150	1.1E-54	8.2E-51	3.9E-89	NS	NS	NS	4.7E-315
2	2	23606	33407	23606	33407	23606	33407	HAdVGT63 (JN935766)	HAdV29 (AB562587) HAdV15 (AB562586) HAdVGT58 (HQ883276)	HAdV30 (JN226755)	8.4E-212	2.2E-167	4.8E-223	7.2E-68	1.4E-67	NS	NS	NS	1.4E-296	
3	3	26368*	30719	26368*	30719	26368*	30719	HAdVGT59 (JF799911)	HAdVGT56 (AB562588) HAdV9 (AJ854486)	Unknown (HAdV10 (AB724351)) Unknown(HAdVGT64 (EF121005)) Unknown(HAdV37 (AB448776))	7.1E-162	9.1E-166	8.7E-174	5.0E-57	4.3E-57	1.2E-68	NS	NS	NS	2.3E-236
4	4	25750	29199	25750	29199	25750	29199	HAdVGT60 (HQ007053)	HAdV15 (AB562586)	Unknown (HAdV48 (EF153473)) Unknown(HAdV47 (JN226757)) Unknown(HAdV44 (JN226763))	3.5E-153	1.0E-160	2.2E-201	5.7E-49	3.3E-38	5.5E-68	NS	NS	NS	1.1E-34
5	5	25711*	28208	25711*	28208	25711*	28208	HAdV49 (DQ393829) HAdV30 (JN226755) PI HAdV32 (JN226756) PI	HAdV28 (JN226759) HAdV45 (JN226764)	Unknown (HAdV26 (EF153474)) Unknown(HAdV23 (JN226750)) Unknown(HAdV47 (JN226757)) Unknown(HAdVGT67 (AP012302)) Unknown(HAdVGT56 (AB562588)) Unknown(HAdV10 (AB724351)) Unknown(HAdV44 (JN226763))	2.6E-153	1.6E-150	6.0E-192	2.4E-48	2.4E-38	1.0E-70	NS	NS	NS	2.7E-34
6	6	28209*	33268	28209*	33268	28209*	33268	HAdV19 (AB448771) HAdVGT59 (JF799911) PI	HAdVGT64 (EF121005) HAdV37 (AB448776)	HAdV49 (DQ393829) HAdV29 (AB562587)	3.1E-20	1.5E-66	8.6E-71	3.4E-09	2.7E-09	7.6E-48	NS	NS	NS	6.0E-198
7	7	25616	28157*	25616	28157*	25616	28157*	HAdV33 (JN226758)	HAdV43 (JN226762) HAdV39 (JN226760) HAdV38 (JN226759)	Unknown (HAdV25 (JN226752)) Unknown(HAdV17 (HQ910407)) Unknown(HAdVGT56 (AB562588)) Unknown(HAdV10 (AB724351))	8.4E-153	3.6E-142	4.9E-184	1.1E-21	7.1E-34	2.4E-66	NS	NS	NS	1.4E-14
8	8	26393	30666*	26393	30666*	26393	30666*	HAdVGT56 (AB562588) HAdV9 (AJ854486)	HAdVGT65 (AP012285)	HAdV10 (AB724351) HAdVGT64 (EF121005) HAdV37 (AB448776)	1.0E-83	3.4E-99	3.1E-70	2.5E-43	1.8E-51	5.2E-34	NS	NS	NS	5.1E-184
9	9	25842	28209	25842	28209	25842	28209	HAdV42 (JN226761) HAdVGT53 (AB605243) HAdV22_37 8 (AB605240) HAdV22 (FJ619037) PI HAdV22_37 8 (AB605242) HAdV17 (HQ910407) PI HAdV29 (AB562587) HAdV20 (JN226749) PI	HAdV25 (JN226752)	Unknown (HAdV26 (EF153474)) Unknown(HAdV47 (JN226757)) Unknown(HAdV15 (AB562586)) Unknown(HAdVGT67 (AP012302)) Unknown(HAdV10 (AB724351))	3.1E-155	2.4E-153	1.1E-165	4.4E-48	3.1E-33	9.1E-67	NS	NS	NS	2.1E-74
10	10	10*	25615*	10*	25615*	10*	25615*	HAdV10 (AB724351) HAdVGT56 (AB562588) PI HAdV26 (EF153474) HAdV27 (JN226752)	HAdV29 (AB562587)	Unknown (HAdV33 (JN226758)) Unknown(HAdV30 (JN226755))	7.1E-61	2.9E-61	2.0E-71	4.1E-11	3.4E-16	2.0E-39	NS	NS	NS	1.0E-162
11	11	28209*	33199	28209*	33199	28209*	33199	HAdVGT67 (AP012302)	HAdV25 (JN226752)	HAdV49 (DQ393829)	1.1E-61	4.8E-75	2.0E-17	4.6E-08	1.4E-18	2.5E-42	NS	NS	NS	3.6E-158
12	12	28210*	33612*	28210*	33612*	28210*	33612*	HAdV29 (AB562587)	HAdVGT58 (HQ883276) HAdV25 (JN226752)	HAdV30 (JN226755)	1.6E-72	NS	NS	1.3E-12	3.3E-09	NS	NS	NS	NS	1.1E-155
13	13	25487	33369	25487	33369	25487	33369	HAdV46 (AY875648)	HAdV24 (JN226751)	HAdV51 (JN226765) HAdV47 (JN226757) HAdV30 (JN226755) HAdV45 (JN226764) HAdV36 (GQ384080) HAdV48 (EF153473)	1.3E-121	9.4E-113	1.5E-145	4.3E-39	3.4E-38	1.7E-94	NS	NS	NS	NS
14	14	27041	31089*	27041	31089*	27041	31089*	HAdV44 (JN226763)	HAdV48 (EF153473)	HAdV45 (JN226764) HAdV36 (GQ384080) HAdV38 (JN226759)	2.8E-70	1.3E-99	6.9E-138	9.7E-46	1.8E-40	4.2E-75	NS	NS	NS	NS
15	15	29744	30962	29744	30962	29744	30962	HAdV38 (JN226759)	HAdV13 (JN226747)	Unknown (HAdV43 (JN226762))	5.2E-117	3.7E-129	2.4E-137	2.5E-37	9.4E-37	1.0E-50	NS	NS	NS	9.9E-27
16	16	1023	27040*	1023	27040*	1023	27040*	HAdV48 (EF153473)	HAdV44 (JN226763)	Unknown (HAdV51 (JN226765))	2.4E-15	NS	NS	1.5E-06	3.1E-06	NS	NS	NS	NS	1.6E-129
17	17	28209*	32987	28209*	32987	28209*	32987	HAdV49 (DQ393829)	HAdV30 (JN226755) HAdV36 (GQ384080) HAdV13 (JN226747)	HAdVGT58 (HQ883276)	1.4E-66	7.7E-67	8.7E-76	3.8E-27	5.3E-23	2.9E-47	NS	NS	NS	3.1E-122
18	18	25762	27675	25762	27675	25762	27675	HAdV19 (AB448771) HAdVGT65 (AP012285) HAdV51 (JN226765) PI	HAdVGT54 (AB448770) HAdV8 (AB448767)	HAdV39 (JN226760) HAdVGT58 (HQ883276) HAdVGT62 (JN162671)	3.9E-109	6.6E-121	2.7E-74	1.8E-38	1.0E-28	2.8E-44	NS	NS	NS	1.6E-102
19	19	29385*	30684	29385*	30684	29385*	30684	HAdVGT53 (AB605243) HAdV22_37 8 (AB605240) HAdV8 (AB448767) HAdVGT54 (AB448770)	HAdVGT65 (AP012285)	HAdV51 (JN226765) HAdV23 (JN226750) HAdV47 (JN226757) HAdV32 (JN226756) HAdV45 (JN226764) HAdV36 (GQ384080) HAdV13 (JN226747)	5.1E-84	2.7E-94	1.7E-93	4.1E-27	1.4E-27	6.2E-39	NS	NS	NS	8.1E-128
20	20	26118	30715	26118	30715	26118	30715	HAdVGT58 (HQ883276) HAdV39 (JN226760) PI HAdVGT63 (JN935766) PI HAdV43 (JN226762)	HAdV25 (JN226752) HAdV45 (JN226764)	Unknown (HAdV26 (EF153474))	5.9E-41	1.0E-66	1.9E-33	3.9E-27	5.6E-18	5.6E-52	NS	NS	NS	3.2E-114
21	21	29671	31536	29671	31536	29671	31536	HAdV32 (JN226756)	HAdV33 (JN226758)	HAdV15 (AB562586)	1.5E-99	5.2E-96	2.0E-112	4.7E-30	4.2E-22	1.3E-48	NS	NS	NS	NS
22	22	12956*	20809	12956*	20809	12956*	20809	HAdV37 (AB448776) HAdVGT53 (AB605243)	HAdV13 (JN226747)	HAdVGT64 (EF121005)	2.0E-83	NS	NS	1.7E-41	1.1E-32	NS	NS	NS	NS	7.1E-104
23	23	36*	5549	36*	5549	36*	5549	HAdV30 (JN226755) HAdVGT63 (JN935766)	HAdV33 (JN226758)	HAdV45 (JN226764)	1.0E-82	2.3E-87	4.8E-103	1.6E-28	1.8E-24	4.7E-48	NS	NS	NS	1.1E-17
24	24	29541	33552*	29541	33552*	29541	33552*	HAdVGT64 (EF121005) HAdV37 (AB448776)	HAdV22_37 (AB605240)	HAdV22 (FJ619037) HAdV20 (JN226749)	1.5E-92	5.1E-90	3.6E-101	2.2E-32	3.6E-29	1.8E-53	NS	NS	NS	NS
25	25	27041*	27793	27041*	27793	27041*	27793	HAdV48 (EF153473) HAdV44 (JN226763) PI	HAdVGT62 (JN162671)	Unknown (HAdV23 (JN226750))	3.7E-39	3.8E-51	2.2E-54	3.2E-23	7.0E-19	5.5E-40	NS	NS	NS	4.4E-96
26	26	26712	28418	26712	28418	26712	28418	HAdV38 (JN226759) HAdV49 (DQ393829) PI	HAdV45 (JN226764)	Unknown (HAdV28 (FJ824826)) Unknown(HAdVGT62 (JN162671)) Unknown(HAdV27 (JN226753))	3.1E-75	6.1E-81	3.2E-91	6.7E-38	3.6E-33	4.3E-58	NS	NS	NS	1.8E-75
27	27	26611	29373	26611	29373	26611	29373	HAdV43 (JN226762) HAdV33 (JN226758) PI	HAdV13 (JN226747)	HAdV28 (FJ824826)	3.1E-55	7.5E-50	3.9E-35	4.1E-35	1.1E-13	1.9E-40	NS	NS	NS	5.0E-89
28	28	26805	28021	26805	28021	26805	28021	HAdV32 (JN226756) HAdV30 (JN226755)	HAdV45 (JN226764)	HAdV27 (JN226753) HAdV28 (FJ824826)	2.1E-29	4.5E-25	3.2E-22	2.0E-24	5.4E-22	NS	NS	NS	NS	6.4E-86
29	29	17586	18649	17586	18649	17586	18649	HAdVGT65 (AP012285)	HAdV10 (AB724351)	Unknown (HAdV9 (AJ854486))	1.5E-85	2.0E-84	1.5E-74	5.1E-29	7.3E-29	NS	NS	NS	NS	2.3E-77
30	30	17699	19468	17699	19468	17699	19468	HAdVGT56 (AB562588)	HAdV15 (AB562586)	HAdV10 (AB724351)	9.7E-63	6.4E-82	1.9E-70	5.4E-27	4.7E-27	5.2E-29	NS	NS	NS	5.2E-85
31	31	17565*	18645	17565*	18645	17565*	18645	HAdV9 (AJ854486)	HAdVGT67 (AP012302)	HAdV10 (AB724351)	9.6E-79	2.5E-76	6.7E-80	5.5E-27	3.8E-27	NS	NS	NS	NS	2.3E-67
32	32	31651	33569*	31651	33569*	31651	33569*	HAdV36 (GQ384080) HAdVGT62 (JN162671)	Unknown(HAdV26 (EF153474)) Unknown(HAdV23 (JN226750))	HAdV25 (JN226752) HAdV23 (JN226750)	6.9E-46	1.7E-66	3.7E-78	1.4E-19	6.5E-13	7.1E-37	NS	NS	NS	NS
33	33	17285	18600	17285	18600	17285	18600	HAdV22 (FJ619037)	HAdV22_37 (AB605240) HAdV22_37 8 (AB605242)	Unknown (HAdV20 (JN226749))	2.4E-58	7.1E-74	3.4E-74	1.2E-22	9.9E-22	1.5E-31	NS	NS	NS	3.1E-19
34	34	28210*	30686	28210*	30686	28210*	30686	HAdV42 (JN226761)	HAdV22 (FJ619037)	Unknown (HAdV20 (JN226749))	4.8E-07	6.1E-12	1.1E-16	NS	1.4E-10	1.1E-09	NS	NS	NS	1.9E-102
35	35	29927	30723	29927	30723	29927	30723	HAdV47 (JN226757)	HAdV20 (JN226749)	HAdV22 (FJ619037)	6.7E-78	1.0E-71	1.7E-71	2.0E-25	1.3E-17	1.3E-31	NS	NS	NS	4.4E-50
36	36	31493	33567*	31493	33567*	31493	33567*	HAdV26 (EF153474) HAdV23 (JN226750) PI	HAdV25 (JN226752)	Unknown (HAdV10 (AB724351)) Unknown(HAdVGT56 (AB562588)) Unknown(HAdV9 (AJ854486)) Unknown(HAdVGT60 (HQ007053))	7.4E-71	4.3E-68	1.9E-72	3.5E-22	7.8E-14	5.1E-27	NS	NS	NS	2.1E-13
37	37	26314	27802	26314	27802	26314	27802	HAdV24 (JN226751) HAdV46 (AY875648)	HAdV10 (AB724351)	Unknown (HAdV23 (JN226750))	1.0E-60	8.6E-69	7.5E-90	6.7E-33	4.0E-25	5.8E-49	NS	NS	NS	4.8E-20
38	38	30685*	32325	30685*	32325	30685*	32325	HAdV19 (AB448771) HAdVGT65 (AP012285) PI HAdV15 (AB562586) PI HAdV17 (HQ910407) PI HAdV46 (AY875648)	HAdV27 (JN226753) HAdV29 (AB562587) HAdV28 (FJ824826) HAdV48 (EF153473)	HAdVGT54 (AB448770) HAdV8 (AB448767)	1.9E-17	3.7E-38	1.5E-32	1.8E-12	6.1E-10	5.9E-34	NS	NS	NS	2.2E-72

38							HAdV24 (JN226751) HAdV20 (JN226749)[PI]												
39	40	26813	28049	26813	28049	26813	28049	HAdVGT67 (AP012302) HAdV26 (EF153474)	HAdV47 (JN226757)	Unknown (HAdV15 (AB562586)) UnknownHAdV36 (GQ384080) UnknownHAdV25 (JN226752) UnknownHAdVGT60 (HQ007053)	5.0E-57	8.0E-69	1.4E-47	8.6E-28	3.8E-26	5.1E-43	NS	NS	NS
40	41	31666	32914	31666	32914	31666	32914	HAdVGT58 (HQ883276) HAdV9 (AJ854486)	Unknown (HAdV32 (JN226756)) UnknownHAdV33 (JN226758)	HAdV25 (JN226752)	5.2E-51	5.4E-64	2.5E-68	3.2E-25	4.5E-17	NS	NS	NS	4.6E-50
41	41	10*	6812	10*	6812	10*	6812	HAdV29 (AB562587) HAdVGT56 (AB562588)	HAdV27 (JN226753) HAdV32 (JN226756) HAdV10 (AB724351)	Unknown (HAdV45 (JN226764))	4.5E-36	4.3E-68	8.8E-62	9.0E-28	2.2E-21	1.9E-47	NS	NS	3.3E-06
42	43	7589	17698*	7589	17698*	7589	17698*	HAdV20 (JN226749)	HAdV22 37 8 (AB605242) HAdV22 37 (AB605240)	HAdVGT56 (AB562588) HAdV10 (AB724351) HAdV9 (AJ854486)	7.5E-18	5.3E-26	3.3E-05	1.4E-10	1.1E-04	NS	NS	NS	9.3E-73
43	44	17699*	25749*	17699*	25749*	17699*	25749*	HAdVGT60 (HQ007053) HAdV32 (JN226756)[PI]	HAdV20 (JN226749)	Unknown (HAdV22 37 8 (AB605242	6.1E-05	NS	2.8E-13	1.4E-10	3.8E-05	NS	NS	NS	1.4E-90
44	45	24814	27040*	24814	27040*	24814	27040*	HAdV44 (JN226763) HAdV36 (GQ384080)	HAdV45 (JN226764)	HAdV48 (EF153473)	2.5E-56	NS	5.6E-68	9.9E-15	4.1E-11	2.9E-24	NS	NS	NS
45	46	27795	30690*	27795	30690*	27795	30690*	HAdV39 (JN226760)	HAdV13 (JN226747)	HAdVGT62 (JN162671)	2.5E-05	1.0E-34	5.1E-27	7.7E-31	2.5E-05	NS	NS	NS	2.3E-67
46	47	1199	17698*	1199	17698*	1199	17698*	HAdV32 (JN226756)	Unknown (HAdV44 (JN226763))	HAdV28 (FJ824826)	8.7E-09	NS	1.7E-10	1.8E-06	1.5E-05	NS	NS	NS	2.4E-63
47	47	12701	17698*	12701	17698*	12701	17698*	HAdV26 (EF153474)	HAdVGT56 (AB562588) HAdV10 (AB724351) HAdV9 (AJ854486)	HAdV48 (EF153473) HAdV24 (JN226751) HAdV44 (JN226763)	1.4E-09	1.5E-13	NS	3.5E-11	8.4E-10	4.6E-17	NS	NS	2.7E-59
48	49	1326	12700*	1326	12700*	1326	12700*	HAdV25 (JN226752) HAdVGT65 (AP012285)[PI]	HAdV26 (EF153474)	Unknown (HAdV15 (AB562586)) UnknownHAdV47 (JN226757)	1.9E-13	1.6E-11	2.1E-06	6.6E-14	1.4E-11	9.2E-19	NS	NS	5.2E-74
49	50	26501	27619*	26501	27619*	26501	27619*	HAdV51 (JN226765)	HAdVGT60 (HQ007053) HAdV15 (AB562586)	HAdV19 (AB448771) HAdVGT65 (AB448770)	8.1E-26	3.7E-18	3.3E-18	2.8E-05	6.7E-09	NS	NS	NS	3.9E-59
50	51	1029*	3915	1029*	3915	1029*	3915	HAdV15 (AB562586) HAdV38 (JN226759)	Unknown (HAdVGT64 (EF121005) UnknownHAdV37 (AB448776))	HAdV22 37 8 (AB605242) HAdVGT53 (AB605243) HAdV22 37 (AB605240)	3.8E-51	8.6E-54	5.6E-58	1.7E-19	3.3E-17	5.6E-31	NS	NS	7.0E-06
51	52	30963*	33535*	30963*	33535*	30963*	33535*	HAdVGT60 (HQ007053)	HAdV13 (JN226747)	Unknown (HAdV38 (JN226759))	NS	6.5E-35	4.7E-43	3.0E-14	5.2E-10	9.0E-28	NS	NS	1.1E-59
52	53	17311	25710*	17311	25710*	17311	25710*	HAdV13 (JN226747)	HAdV30 (JN226755)	HAdV23 (JN226750)	5.3E-07	NS	NS	1.4E-15	2.6E-13	4.0E-06	NS	NS	9.5E-52
53	54	1032*	3878*	1032*	3878*	1032*	3878*	HAdV22 37 8 (AB605242) HAdVGT53 (AB605243) HAdV22 37 (AB605240)	HAdVGT64 (EF121005) HAdV37 (AB448776)	Unknown (HAdVGT59 (JF799911))	5.8E-46	1.2E-49	3.5E-51	1.7E-19	1.5E-16	1.5E-25	NS	NS	1.1E-13
54	55	20810*	24419	20810*	24419	20810*	24419	HAdVGT53 (AB605243) HAdV37 (AB448776)[PI]	HAdVGT64 (EF121005)	HAdVGT59 (JF799911) HAdV22 37 (AB605240) HAdV22 37 8 (AB605242)	NS	9.5E-17	6.0E-12	7.3E-05	NS	1.2E-39	NS	NS	1.4E-57
55	56	24420*	27947	24420*	27947	24420*	27947	HAdV37 (AB448776) HAdVGT64 (EF121005)	HAdV25 (JN226752)	Unknown (HAdV23 (JN226750))	5.4E-15	NS	1.3E-13	7.5E-06	3.1E-06	4.7E-08	NS	NS	2.9E-95
56	58	26163	29384*	26163	29384*	26163	29384*	HAdV8 (AB448767) HAdVGT54 (AB448770)	Unknown (HAdV47 (JN226757))	HAdV10 (AB724351) HAdV25 (JN226752)	NS	NS	2.7E-09	1.0E-08	1.3E-10	3.0E-10	NS	NS	2.1E-57
57	59	17717	18593	17717	18593	17717	18593	HAdVGT64 (EF121005)	HAdV19 (AB448771)	Unknown (HAdV23 (JN226750))	1.3E-41	8.6E-49	9.2E-49	6.8E-23	3.5E-20	3.0E-33	NS	NS	NS
58	60	8727	12955*	8727	12955*	8727	12955*	HAdVGT53 (AB605243)	HAdV37 (AB448776)	HAdV22 37 (AB605240) HAdV22 37 8 (AB605242)	NS	3.3E-25	1.0E-09	2.7E-18	2.7E-18	NS	NS	NS	1.9E-48
59	61	28721	30684*	28721	30684*	28721	30684*	HAdV33 (JN226758)	HAdV24 (JN226751) HAdV46 (AY875648)	HAdVGT65 (AP012285)	8.1E-19	7.5E-35	9.9E-22	4.6E-09	9.7E-17	2.0E-26	NS	NS	8.4E-45
60	62	498	3121	498	3121	498	3121	HAdV20 (JN226749) HAdV22 (FJ619037)	HAdV42 (JN226761)	HAdV51 (JN226765) HAdV23 (JN226750) HAdVGT67 (AP012302) HAdV36 (GQ384080) HAdV10 (AB724351) HAdV26 (EF153474) HAdV27 (JN226753) HAdV9 (AJ854486) HAdV44 (JN226763)	1.7E-31	4.8E-34	7.3E-44	3.6E-20	4.7E-15	1.3E-29	NS	NS	NS
61	63	26528	27040*	26528	27040*	26528	27040*	HAdV44 (JN226763) HAdV45 (JN226764)	HAdV36 (GQ384080)	HAdV25 (JN226752) HAdV29 (AB562587) HAdV42 (JN226761)	8.5E-24	NS	2.0E-22	1.6E-19	4.2E-20	NS	NS	NS	1.8E-42
62	64	26782	27788	26782	27788	26782	27788	HAdV28 (FJ824826)	HAdV27 (JN226753)	HAdVGT62 (JN162671)	5.1E-38	1.3E-40	2.4E-42	7.4E-05	1.1E-23	1.5E-42	NS	NS	1.9E-18
63	65	27617	28418*	27617	28418*	27617	28418*	HAdV36 (GQ384080)	HAdVGT60 (HQ007053) HAdV15 (AB562586)	HAdV38 (JN226759) HAdV45 (JN226764)	6.1E-28	NS	1.3E-28	3.5E-20	1.9E-17	1.8E-25	NS	NS	6.2E-42
64	66	72*	2725	72*	2725	72*	2725	HAdV23 (JN226750)	HAdV51 (JN226765)	Unknown (HAdV39 (JN226760))	1.4E-34	1.6E-41	5.7E-35	5.7E-09	4.3E-14	6.3E-32	NS	NS	NS
65	67	25775	26116*	25775	26116*	25775	26116*	HAdV48 (EF153473) HAdV15 (AB562586)[PI] HAdV24 (JN226751) HAdV8 (AB448767)[PI] HAdV9 (AJ854486)	Unknown (HAdV39 (JN226760)) UnknownHAdV43 (JN226762)	HAdVGT62 (JN162671) HAdV28 (FJ824826)	7.2E-41	6.7E-41	2.0E-38	8.0E-13	1.6E-09	2.0E-23	NS	NS	NS
66	68	31675	33508	31675	33508	31675	33508	HAdV28 (FJ824826) HAdV27 (JN226753)	HAdV48 (EF153473) HAdV29 (AB562587) HAdV27 (JN226753)	HAdV30 (JN226755) HAdV45 (JN226764)	4.6E-27	1.2E-34	9.6E-41	1.8E-16	1.2E-12	1.2E-26	NS	NS	1.6E-08
67	69	17550	18582	17550	18582	17550	18582	HAdV29 (AB562587)	HAdV15 (AB562586)	HAdV30 (JN226755) HAdVGT63 (JN935766)	1.8E-34	2.6E-39	2.2E-48	6.1E-21	3.4E-17	9.3E-36	NS	NS	NS
68	70	25756	26052	25756	26052	25756	26052	HAdVGT54 (AB448770)	HAdV47 (JN226757)	HAdVGT62 (JN162671) HAdV39 (JN226760) HAdV28 (FJ824826) HAdVGT58 (HQ883276) HAdV43 (JN226762) HAdV38 (JN226759)	1.3E-39	5.1E-39	7.0E-31	5.6E-15	3.8E-16	3.2E-15	NS	NS	NS
69	71	30963*	32414	30963*	32414	30963*	32414	HAdV49 (DO393829)	HAdV10 (AB724351) HAdV22 (FJ619037)	HAdV38 (JN226759) HAdV22 (FJ619037) HAdV25 (JN226752)	2.8E-09	2.8E-05	2.3E-08	1.2E-08	4.8E-07	NS	NS	NS	9.1E-39
70	72	32326*	33228	32326*	33228	32326*	33228	HAdV39 (JN226760)	Unknown (HAdV22 37 (AB605240) UnknownHAdV22 (FJ619037) UnknownHAdV20 (JN226749) UnknownHAdV42 (JN226761))	HAdV17 (HQ910407) HAdV22 (FJ619037) HAdV24 (JN226751) HAdV20 (JN226749) HAdV42 (JN226761)	1.0E-26	1.3E-33	1.1E-38	1.7E-05	NS	NS	NS	NS	NS
71	73	25759	26300	25759	26300	25759	26300	HAdV38 (JN226759) HAdV28 (FJ824826)	Unknown (HAdV25 (JN226752))	HAdV45 (JN226764) HAdV23 (JN226750)	1.8E-28	1.6E-38	1.1E-35	5.1E-13	1.8E-11	NS	NS	NS	4.7E-06
72	74	32095	32914*	32095	32914*	32095	32914*	HAdVGT58 (HQ883276) HAdV36 (GQ384080)	Unknown (HAdV25 (JN226752)) UnknownHAdV23 (JN226750) UnknownHAdV47 (JN226757) UnknownHAdV32 (JN226756) UnknownHAdVGT67 (AP012302) UnknownHAdV45 (JN226764) UnknownHAdV29 (AB562587) UnknownHAdV51 (JN226765) UnknownHAdV28 (FJ824826) UnknownHAdV26 (EF153474) UnknownHAdV27 (JN226753) UnknownHAdV43 (JN226762) UnknownHAdV44 (JN226763) UnknownHAdV48 (EF153473) UnknownHAdV38 (JN226759))	HAdV33 (JN226758) HAdV30 (JN226755) HAdVGT64 (EF121005) HAdV22 37 (AB605240) HAdV22 (FJ619037) HAdV15 (JN226747) HAdVGT56 (AB562588) HAdV10 (AB724351) HAdVGT59 (JF799911) HAdVGT62 (JN162671) HAdV9 (AJ854486) HAdVGT60 (HQ007053) HAdV37 (AB448776) HAdV42 (JN226761)	1.2E-13	5.1E-10	1.4E-12	4.1E-14	NS	1.0E-28	NS	NS	1.6E-38
73	75	26671	27689	26671	27689	26671	27689	HAdVGT59 (JF799911) HAdVGT56 (AB562588) HAdV9 (AJ854486)	HAdV8 (AB448767) HAdVGT54 (AB448770)	HAdV17 (HQ910407) HAdV20 (JN226749)	2.9E-10	5.9E-13	1.3E-09	NS	NS	NS	NS	NS	1.9E-38
74	76	1266	3567	1266	3567	1266	3567	HAdV45 (JN226764) HAdV47 (JN226757)	Unknown (HAdV19 (AB448771)) UnknownHAdVGT64 (EF121005)	HAdV28 (FJ824826) HAdV46 (AY875648)	6.2E-27	4.2E-36	4.9E-37	2.2E-08	1.5E-12	9.3E-22	NS	NS	4.2E-19

133	144	31651*	32224	31651*	32224	31651*	32224	HAdVGT62 (JN162671)	HAdV30 (JN226755)	HAdV51 (JN226765) HAdV23 (JN226750) HAdV47 (JN226757) HAdVGT67 (AP012302) HAdV25 (JN226752) HAdV26 (EF153474) HAdV44 (JN226763) HAdV38 (JN226759)	4.1E-10	2.6E-07	2.3E-05	NS	5.2E-11	NS	NS	NS	4.5E-17			
133																						
133																						
133																						
133																						
133																						
133																						
134	145	32326*	33612*	32326*	33612*	32326*	33612*	HAdV15 (AB562586)	HAdV29 (AB562587)	HAdV17 (HQ910407)	7.0E-17	4.2E-16	NS	3.3E-09	NS	1.1E-14	NS	NS	NS			
135	146	17699*	18709	17699*	18709	17699*	18709	HAdVGT67 (AP012302)	HAdV32 (JN226756)	Unknown (HAdV10 (AB724351)) Unknown (HAdV28 (FJ824826))	2.7E-10	3.8E-09	1.2E-09	NS	NS	NS	NS	NS	7.7E-17			
136	147	13765	14317	13765	14317	13765	14317	HAdV38 (JN226759)	Unknown (HAdV29 (AB562587)) Unknown (HAdV43 (JN226762))	HAdV15 (AB562586) HAdV46 (AY875648) HAdV36 (GQ384080) HAdV43 (JN226762)	2.4E-06	9.5E-17	8.2E-20	9.9E-10	4.8E-06	1.1E-14	NS	NS	NS	NS		
137	148	13991	14298	13991	14298	13991	14298	HAdV48 (EF153473) HAdVGT62 (JN162671)	Unknown (HAdV15 (AB562586)) Unknown (HAdV46 (AY875648)) Unknown (HAdV36 (GQ384080)) Unknown (HAdV43 (JN226762))	HAdV29 (AB562587) HAdV36 (GQ384080) HAdV43 (JN226762)	NS	4.3E-14	1.3E-16	1.8E-05	5.9E-04	1.4E-10	NS	NS	NS	NS		
138	149	27845	28080	27845	28080	27845	28080	HAdV47 (JN226757) HAdV46 (AY875648) HAdV24 (JN226751)	Unknown (HAdV51 (JN226765)) Unknown (HAdVGT56 (AB562588)) Unknown (HAdVGT59 (JF799911)) Unknown (HAdV27 (JN226753)) Unknown (HAdV9 (AB854486))	HAdV8 (AB448767)	4.1E-04	1.0E-08	9.0E-04	1.8E-10	5.1E-12	1.1E-12	NS	NS	2.1E-16			
139	150	27578	27794*	27578	27794*	27578	27794*	HAdV47 (JN226757)	HAdV39 (JN226760) HAdVGT62 (JN162671)	HAdV26 (EF153474) HAdVGT67 (AP012302)	2.5E-17	2.2E-12	NS	1.1E-06	NS	5.4E-05	NS	NS	1.1E-10			
140	151	26118*	26536*	26118*	26536*	26118*	26536*	HAdV27 (JN226753)	HAdV43 (JN226762) HAdV28 (FJ824826)	HAdV26 (EF153474)	1.3E-16	2.1E-14	6.7E-16	NS	NS	5.0E-13	NS	NS	NS			
141	152	26296	26500*	26296	26500*	26296	26500*	HAdV51 (JN226765)	HAdV32 (JN226756) HAdV49 (DQ393829) HAdV33 (JN226758)	HAdV19 (AB448771)	NS	3.1E-10	4.3E-11	1.2E-04	NS	NS	NS	NS	3.1E-15			
142	153	14085	14532	14085	14532	14085	14532	HAdV15 (AB562586) HAdV29 (AB562587) HAdV46 (AY875648) HAdV43 (JN226762)	HAdV36 (GQ384080)	HAdV22 37 (AB605240) HAdV22 37 8 (AB605242) HAdV20 (JN226749)	NS	3.6E-12	3.4E-15	1.7E-07	1.5E-06	5.8E-15	NS	NS	NS	NS		
143	154	25842*	26484*	25842*	26484*	25842*	26484*	HAdV17 (HQ910407) HAdV29 (AB562587) HAdV20 (JN226749)	HAdV22 37 (AB605240) HAdV22 (FJ619037) HAdV25 (JN226752) HAdV42 (JN226761)	HAdV26 (EF153474) HAdVGT67 (AP012302) HAdV10 (AB724351) HAdVGT60 (HQ007053)	6.3E-06	8.0E-06	1.1E-08	5.3E-06	6.8E-06	NS	NS	NS	NS	5.0E-15		
144	155	21260	22576	21260	22576	21260	22576	HAdV42 (JN226761) HAdV17 (HQ910407) HAdV36 (GQ384080)[T]	HAdVGT64 (EF121005) HAdV37 (AB448776) HAdV36 (GQ384080)	Unknown (HAdVGT67 (AP012302)) Unknown (HAdV23 (JN226758)) Unknown (HAdV22 37 (AB605240)) Unknown (HAdV22 37 8 (AB605242))	7.4E-09	3.2E-13	1.5E-14	5.5E-06	1.2E-05	1.5E-11	NS	NS	NS	NS	NS	
145	156	101*	3353	101*	3353	101*	3353	HAdVGT64 (EF121005) HAdV37 (AB448776)	HAdV42 (JN226761) HAdV46 (AY875648)	HAdVGT58 (HQ883276)	3.7E-17	2.3E-11	1.2E-11	3.4E-10	8.9E-10	4.8E-17	NS	NS	2.0E-05			
146	157	3354*	11809	3354*	11809	3354*	11809	HAdV17 (HQ910407)	HAdV19 (AB448771)	HAdV37 (AB448776)	NS	5.7E-06	2.7E-05	8.6E-07	3.2E-06	1.3E-09	NS	NS	6.9E-49			
147	158	26817	28036	26817	28036	26817	28036	HAdV22 (FJ619037)	HAdVGT58 (HQ883276) HAdV29 (AB562587) HAdV20 (JN226749)	HAdV13 (JN226747) HAdV33 (JN226758) HAdVGT62 (JN162671)	1.6E-06	NS	NS	5.0E-04	4.0E-04	NS	NS	NS	NS	2.3E-15		
148	160	1493*	3013	1493*	3013	1493*	3013	HAdVGT62 (JN162671)	Unknown (HAdV36 (GQ384080)) Unknown (HAdV49 (DQ393829)) Unknown (HAdV33 (JN226758))	HAdV28 (FJ824826) HAdV49 (DQ393829) HAdV46 (AY875648) HAdV44 (JN226763) HAdV42 (JN226761)	NS	7.1E-19	1.0E-21	3.7E-09	4.1E-05	2.8E-21	NS	NS	NS	NS		
149	161	28274*	28916	28274*	28916	28274*	28916	HAdV15 (AB562586)	HAdV49 (DQ393829) HAdVGT53 (AB605243)	HAdV23 (JN226750)	1.8E-07	5.6E-13	1.6E-14	2.0E-07	1.3E-06	NS	NS	NS	NS			
150	162	32438*	33179*	32438*	33179*	32438*	33179*	HAdV46 (AY875648) HAdV20 (JN226749)	HAdV19 (AB448771) HAdV20 (JN226749)	HAdVGT67 (AP012302)	1.6E-12	5.2E-14	NS	1.6E-04	6.4E-04	9.7E-12	NS	NS	NS	NS		
151	163	25844	26367*	25844	26367*	25844	26367*	HAdVGT67 (AP012302)	Unknown (HAdVGT59 (JF799911))	HAdV25 (JN226752)	2.4E-12	7.0E-13	5.3E-14	1.5E-11	1.4E-09	5.6E-21	NS	NS	3.5E-08			
152	164	27852	28080	27852	28080	27852	28080	HAdV51 (JN226765)	HAdV8 (AB448767) HAdVGT54 (AB448770)	Unknown (HAdVGT60 (HQ007053)) Unknown (HAdV19 (AB448771)) Unknown (HAdV36 (GQ384080)) Unknown (HAdV10 (AB724351))	NS	9.0E-05	NS	3.4E-09	1.7E-10	NS	NS	NS	NS	8.3E-14		
153	165	11031	12676*	11031	12676*	11031	12676*	HAdVGT64 (EF121005)	HAdV22 37 8 (AB605242) HAdV22 37 (AB605240)	HAdV37 (AB448776)	5.2E-09	6.0E-08	1.5E-08	4.1E-06	5.2E-07	NS	NS	NS	NS	1.3E-13		
154	171	5919	9121	5919	9121	5919	9121	HAdV22 (FJ619037)	HAdV24 (JN226751)	HAdV48 (EF153473) HAdV33 (JN226758) HAdV25 (JN226752) HAdV10 (AB724351) HAdVGT58 (HQ883276) HAdVGT59 (JF799911) HAdV27 (JN226753) HAdV43 (JN226762) HAdV44 (JN226763)	1.2E-12	1.1E-11	3.1E-05	2.3E-06	2.1E-04	7.9E-09	NS	NS	NS	NS	NS	NS
155	172	26368	26763*	26368	26763*	26368	26763*	HAdVGT60 (HQ007053) HAdV15 (AB562586)[T]	HAdV19 (AB448771)	HAdV37 (AB448776) HAdVGT64 (EF121005) HAdV10 (AB724351)	1.2E-09	4.3E-05	1.4E-06	1.4E-04	7.4E-05	NS	NS	NS	NS	1.6E-12		
156	174	28317	29381*	28317	29381*	28317	29381*	HAdVGT54 (AB448770)	Unknown (HAdV13 (JN226747)) Unknown (HAdVGT62 (JN162671)) Unknown (HAdV27 (JN226753))	HAdVGT58 (HQ883276)	NS	1.3E-08	1.9E-12	1.7E-07	1.0E-05	1.4E-10	NS	NS	NS	NS		
157	175	28159*	28352	28159*	28352	28159*	28352	HAdVGT62 (JN162671)	Unknown (HAdV26 (EF153474)) Unknown (HAdV23 (JN226750)) Unknown (HAdV46 (AY875648)) Unknown (HAdV24 (JN226751))	HAdV51 (JN226765) HAdV46 (AY875648)	5.0E-06	1.7E-10	2.0E-12	NS	NS	5.5E-09	NS	NS	NS	NS		
158	178	832	1114	832	1114	832	1114	HAdVGT67 (AP012302) HAdV47 (JN226757) HAdV45 (JN226764) HAdV39 (AB854486) HAdV44 (JN226763)	Unknown (HAdVGT60 (HQ007053)) Unknown (HAdVGT65 (AP012285)) Unknown (HAdV33 (JN226758)) Unknown (HAdV30 (JN226755)) Unknown (HAdV17 (HQ910407)) Unknown (HAdV25 (JN226752)) Unknown (HAdVGT63 (JN935766))	HAdVGT62 (JN162671) HAdV46 (AY875648)	2.4E-05	6.5E-06	NS	1.5E-06	4.3E-08	NS	NS	NS	NS	4.7E-12		
159	181	28913*	30907*	28913*	30907*	28913*	30907*	HAdVGT62 (JN162671)	HAdV28 (FJ824826)	HAdV13 (JN226747)	4.1E-05	3.2E-09	NS	NS	NS	7.1E-17	NS	NS	7.7E-37			
160	182	28272	28977	28272	28977	28272	28977	HAdVGT58 (HQ883276)	HAdV49 (DQ393829) HAdV30 (JN226755) HAdVGT53 (AB605243) HAdV22 37 (AB605240) HAdV22 37 8 (AB605242)	Unknown (HAdV46 (AY875648))	1.1E-05	NS	1.3E-04	NS	9.1E-04	1.1E-11	NS	NS	NS	NS	NS	
161	184	32415*	32959*	32415*	32959*	32415*	32959*	HAdV32 (JN226756)	HAdVGT67 (AP012302) HAdV33 (JN226758) HAdV38 (JN226759)	HAdV49 (DQ393829)	2.4E-07	NS	NS	1.3E-07	7.9E-04	NS	NS	NS	NS	6.2E-18		
162	186	16061*	17365	16061*	17365	16061*	17365	HAdV19 (AB448771)	HAdV17 (HQ910407)	HAdV10 (AB724351) HAdV49 (DQ393829) HAdV46 (AY875648) HAdV25 (JN226752) HAdVGT56 (AB562588) HAdV9 (AB854486) HAdV38 (JN226759)	NS	1.1E-09	1.6E-11	9.0E-04	NS	1.8E-04	NS	NS	NS	NS	NS	
163	187	32915*	33553*	32915*	33553*	32915*	33553*	HAdV36 (GQ384080)	HAdV51 (JN226765) HAdV47 (JN226757)	Unknown (HAdV23 (JN226750))	2.8E-06	1.3E-04	NS	5.8E-07	7.4E-08	NS	NS	NS	NS	1.7E-11		
164	188	30764*	31646	30764*	31646	30764*	31646	HAdV47 (JN226757) HAdV39 (JN226760) HAdVGT67 (AP012302) HAdV29 (AB562587) HAdV51 (JN226765) HAdVGT63 (JN935766) HAdV43 (JN226762)	HAdVGT59 (JF799911)	Unknown (HAdV17 (HQ910407)) Unknown (HAdV24 (JN226751)) Unknown (HAdVGT56 (AB562588)) Unknown (HAdV20 (JN226749))	8.5E-04	NS	NS	4.3E-10	1.1E-07	NS	NS	NS	NS	NS	1.9E-11	

