

Supplementary Materials

Table S1: Primers used for MfuPV1 whole genome sequencing using a primer walking strategy.

Primer name	Orientation	Sequence (5'-3')
MfuPV1-M13f4A	Forward	GGCAAAGTGTAAGTAAATGG
MfuPV1-M13f7A	Forward	ACTCTATATGAAGATGATAGCAAAGA
MfuPV1-M13f7B	Forward	AAGGACAATGGAATGGACTACA
MfuPV1-M13f7C	Forward	AGGGCATTCTGTGACC
MfuPV1-M13f7D	Forward	GCCCTCCCGTATCAGTG
MfuPV1-M13f7E	Forward	CGTGCCACTCAGCAGGTT
MfuPV1-M13f7F	Forward	GTCCTTGCTCCACCACAG
MfuPV1-M13f7G	Forward	CTTGACAGCTAATCCCTCT
MfuPV1-M13r1A	Reverse	CTTTCCTGGTAGCCCTCC
M13 Reverse.1 ^a	Reverse	GAAACCTTGGGAACAGAC
M13 Forward.1 ^a	Forward	CCTTGGAGGACACCTATC
M13 Reverse.2 ^a	Reverse	TGACCTAGTCGGCTAAGC
M13 Forward.2 ^a	Forward	CCTTGCCGAATACTCTGC
M13 Reverse.3 ^a	Reverse	TGCCAGCCTCAATAAGAC
M13 Forward.3 ^a	Forward	GTGTCAACTGTGCTTAAG
M13 Reverse.4 ^a	Reverse	CATTCTGCTGTCTACTAC
M13 Forward.4 ^a	Forward	AGGACCTTCGTGTGTTAG
M13 Reverse.5 ^a	Reverse	ACAAAGCCACGTTACTTG
M13 Forward.5 ^a	Forward	CCGCCTAAGCTGCTTTTG
M13 Reverse.6 ^a	Reverse	TTTGTCCAATGCCAGGTG
M13 Forward.6 ^a	Forward	ACAGTGGATAAACGTCG
M13 Reverse.7 ^a	Reverse	ATCTCGCAGTGTCCACTC
M13 Forward.7 ^a	Forward	TTAAGTGCGCTGCAGGAC

^a Primers were designed at Microsynth AG (Balgach, Switzerland).

Table S2: Primers used for MfuPV2 whole genome sequencing using a primer walking strategy.

Primer name	Orientation	Sequence (5'-3')
MfuPV2-s1-forward	Forward	AAAATCCAAACGCTAAAATC
MfuPV2-s2-forward	Forward	TGCTTTTAAGGAACATTTTTT
MfuPV2-s3-forward	Forward	ATTATACCTGGTGTGGAAGAA
MfuPV2-s4-forward	Forward	GAGGCAGTGGTTACTAAGAGG
MfuPV2-s5-forward	Forward	GTAAGTTTCAGGACCTTTTTG
MfuPV2-s6-forward	Forward	GCAGCATTATATTGGTACAGG
MfuPV2-s7-forward	Forward	TGTCAATGTCAGAGTGGATAA
MfuPV2-s8-reverse	Reverse	TCGCTTAACTTGTTGCTATCT
MfuPV2-sDOD-forward	Forward	CAGGATCAAATGCTAGAACTG
MfuPV2-s9-forward	Forward	GACAAAAGTAAAGGGACAAAT
MfuPV2-s10-forward	Forward	GACAGTTCACCTGTAATCCAC
MfuPV2-s1011-forward	Forward	GTTTATATCTGGAGGTGCTGT
MfuPV2-s11-forward	Forward	TACTGTTGCTGGTGTATTGA
MfuPV2-s12-forward	Forward	TTAGCAACCCTCTGTTTACT
MfuPV2-s13-forward	Forward	CGTGTATGTTGATGGTAGTGA
MfuPV2-249f1	Forward	CAATCAAGGGGACACAGTCC
MfuPV2-145r1	Reverse	TGCTCACGCCTCAGATAAAA
V2_r.2 ^a	Reverse	TTGATCGGTGCTTACAAC
V2_r.3 ^a	Reverse	TGCAGTGAGACAATATCC
V2_r.4 ^a	Reverse	TAACATCCACTACAGTGC
V2_r.5 ^a	Reverse	AGAATTAGGAAGCAGATG
V2_r.6 ^a	Reverse	TCGCTGTCGTTTAGGTAC
V2_r.7 ^a	Reverse	TGTTTCATACAGTTCTAG
V2_f.2 ^a	Forward	TCCACTCCCCTGCCAAG
V2_f.3 ^a	Forward	AAGTGCAACTCTGGCAAC
V2_f.4 ^a	Forward	AATTGAGGCAGAAACCGG
V2_f.5 ^a	Forward	ACATGGTGGACTTCATAG
V2_f.6 ^a	Forward	GGTGACATCTTGCAACTG
V2_f.7 ^a	Forward	TTTTGCATGAGCCTTATG
MfuPV2-E1-invforward	Forward	GGACACAGTGCTGAAAACCTCT
MfuPV2-E1-invreverse	Reverse	CTGTTCTTCGCACATTTGAA
pJET1.2 Forward ^b	Forward	CGACTCACTATAGGGAGAGCGGC
pJET1.2 Reverse ^b	Reverse	AAGAACATCGATTTTCCATGGCAG

^a Primers were designed at Microsynth AG (Balgach, Switzerland).

^b Primers are included in CloneJET PCR Cloning Kit (Thermo Scientific, Waltham, MA, USA).

Table S3: Accession numbers of papillomavirus types used to perform the phylogenetic and sequence similarity analyses.

PV type	PV genus	GenBank^a accession number	PV type	PV genus	GenBank^a accession number
HPV1	<i>Mu</i> -PV	V01116	HPV43	<i>Alpha</i> -PV	AJ620205
HPV2	<i>Alpha</i> -PV	X55964	HPV44	<i>Alpha</i> -PV	U31788
HPV3	<i>Alpha</i> -PV	X74462	HPV45	<i>Alpha</i> -PV	X74479
HPV5	<i>Beta</i> -PV	M17463	HPV47	<i>Beta</i> -PV	M32305
HPV6	<i>Alpha</i> -PV	X00203	HPV49	<i>Beta</i> -PV	X74480
HPV7	<i>Alpha</i> -PV	X74463	HPV51	<i>Alpha</i> -PV	M62877
HPV8	<i>Beta</i> -PV	M12737	HPV52	<i>Alpha</i> -PV	X74481
HPV9	<i>Beta</i> -PV	X74464	HPV53	<i>Alpha</i> -PV	X74482
HPV10	<i>Alpha</i> -PV	X74465	HPV54	<i>Alpha</i> -PV	U37488
HPV11	<i>Alpha</i> -PV	M14119	HPV56	<i>Alpha</i> -PV	X74483
HPV12	<i>Beta</i> -PV	X74466	HPV57	<i>Alpha</i> -PV	X55965
HPV13	<i>Alpha</i> -PV	X62843	HPV58	<i>Alpha</i> -PV	D90400
HPV14	<i>Beta</i> -PV	X74467	HPV59	<i>Alpha</i> -PV	X77858
HPV15	<i>Beta</i> -PV	X74468	HPV61	<i>Alpha</i> -PV	U31793
HPV16	<i>Alpha</i> -PV	K02718	HPV62	<i>Alpha</i> -PV	AY395706
HPV17	<i>Beta</i> -PV	X74469	HPV63	<i>Mu</i> -PV	X70828
HPV18	<i>Alpha</i> -PV	X05015	HPV66	<i>Alpha</i> -PV	U31794
HPV19	<i>Beta</i> -PV	X74470	HPV67	<i>Alpha</i> -PV	D21208
HPV20	<i>Beta</i> -PV	U31778	HPV68	<i>Alpha</i> -PV	DQ080079
HPV21	<i>Beta</i> -PV	U31779	HPV69	<i>Alpha</i> -PV	AB027020
HPV22	<i>Beta</i> -PV	U31780	HPV70	<i>Alpha</i> -PV	U21941
HPV23	<i>Beta</i> -PV	U31781	HPV71	<i>Alpha</i> -PV	AB040456
HPV24	<i>Beta</i> -PV	U31782	HPV72	<i>Alpha</i> -PV	X94164
HPV25	<i>Beta</i> -PV	X74471	HPV73	<i>Alpha</i> -PV	X94165
HPV26	<i>Alpha</i> -PV	X74472	HPV74	<i>Alpha</i> -PV	AF436130
HPV27	<i>Alpha</i> -PV	X74473	HPV75	<i>Beta</i> -PV	Y15173
HPV28	<i>Alpha</i> -PV	U31783	HPV76	<i>Beta</i> -PV	Y15174
HPV29	<i>Alpha</i> -PV	U31784	HPV77	<i>Alpha</i> -PV	Y15175
HPV30	<i>Alpha</i> -PV	X74474	HPV78	<i>Alpha</i> -PV	KC138720
HPV31	<i>Alpha</i> -PV	J04353	HPV80	<i>Beta</i> -PV	Y15176
HPV32	<i>Alpha</i> -PV	X74475	HPV81	<i>Alpha</i> -PV	AJ620209
HPV33	<i>Alpha</i> -PV	M12732	HPV82	<i>Alpha</i> -PV	AB027021
HPV34	<i>Alpha</i> -PV	X74476	HPV83	<i>Alpha</i> -PV	AF151983
HPV35	<i>Alpha</i> -PV	X74477	HPV84	<i>Alpha</i> -PV	AF293960
HPV36	<i>Beta</i> -PV	U31785	HPV85	<i>Alpha</i> -PV	AF131950
HPV37	<i>Beta</i> -PV	U31786	HPV86	<i>Alpha</i> -PV	AF349909
HPV38	<i>Beta</i> -PV	U31787	HPV87	<i>Alpha</i> -PV	AJ400628
HPV39	<i>Alpha</i> -PV	M62849	HPV89	<i>Alpha</i> -PV	AF436128
HPV40	<i>Alpha</i> -PV	X74478	HPV90	<i>Alpha</i> -PV	AY057438
HPV42	<i>Alpha</i> -PV	M73236	HPV91	<i>Alpha</i> -PV	AF419318

Table S3: Cont.

PV type	PV genus	GenBank ^a accession number	PV type	PV genus	GenBank ^a accession number
HPV92	<i>Beta</i> -PV	AF531420	HPV160	<i>Alpha</i> -PV	AB745694
HPV93	<i>Beta</i> -PV	AY382778	HPV166	<i>Gamma</i> -PV	JX413104
HPV94	<i>Alpha</i> -PV	AJ620211	HPV174	<i>Beta</i> -PV	HF930491
HPV96	<i>Beta</i> -PV	AY382779	HPV204	<i>Mu</i> -PV	KP769769
HPV97	<i>Alpha</i> -PV	DQ080080	HPV209	<i>Beta</i> -PV	KY242583
HPV98	<i>Beta</i> -PV	FM955837	AgPV1	<i>Dyoomikron</i> -PV	KP861980
HPV99	<i>Beta</i> -PV	FM955838	CgPV1	<i>Alpha</i> -PV	GU014532
HPV100	<i>Beta</i> -PV	FM955839	CgPV2	<i>Beta</i> -PV	GU014533
HPV101	<i>Gamma</i> -PV	DQ080081	MfPV1	<i>Beta</i> -PV	EF028290
HPV102	<i>Alpha</i> -PV	DQ080083	MfPV2	<i>Beta</i> -PV	GU014531
HPV104	<i>Beta</i> -PV	FM955840	MfPV3	<i>Alpha</i> -PV	EF558839
HPV105	<i>Beta</i> -PV	FM955841	MfPV4	<i>Alpha</i> -PV	EF558841
HPV106	<i>Alpha</i> -PV	DQ080082	MfPV5	<i>Alpha</i> -PV	EF558843
HPV107	<i>Beta</i> -PV	EF422221	MfPV6	<i>Alpha</i> -PV	EF558840
HPV110	<i>Beta</i> -PV	EU410348	MfPV7	<i>Alpha</i> -PV	EF558838
HPV111	<i>Beta</i> -PV	EU410349	MfPV8	<i>Alpha</i> -PV	EF558842
HPV113	<i>Beta</i> -PV	FM955842	MfPV9	<i>Alpha</i> -PV	EU490516
HPV114	<i>Alpha</i> -PV	GQ244463	MfPV10	<i>Alpha</i> -PV	EU490515
HPV115	<i>Beta</i> -PV	FJ947080	MfPV11	<i>Alpha</i> -PV	GQ227670
HPV117	<i>Alpha</i> -PV	GQ246950	MmPV1	<i>Alpha</i> -PV	M60184
HPV118	<i>Beta</i> -PV	GQ246951	MmPV2	<i>Alpha</i> -PV	MG837557
HPV120	<i>Beta</i> -PV	GQ845442	MmPV3	<i>Alpha</i> -PV	MG837558
HPV122	<i>Beta</i> -PV	GQ845444	MmPV4	<i>Gamma</i> -PV	MG837559
HPV124	<i>Beta</i> -PV	GQ845446	MmPV5	<i>Gamma</i> -PV	MH745747
HPV125	<i>Alpha</i> -PV	FN547152	MmPV6	<i>Alpha</i> -PV	MH745748
HPV134	<i>Gamma</i> -PV	GU117634	MmPV7	<i>Gamma</i> -PV	MH745749
HPV143	<i>Beta</i> -PV	HM999995	PhPV1	<i>Alpha</i> -PV	JF304764
HPV145	<i>Beta</i> -PV	HM999997	PpPV1	<i>Alpha</i> -PV	X62844
HPV150	<i>Beta</i> -PV	FN677755	SscPV1	<i>Dyoomikron</i> -PV	JF304765
HPV151	<i>Beta</i> -PV	FN677756	SscPV2	<i>Dyoomikron</i> -PV	JF304766
HPV152	<i>Beta</i> -PV	JF304768	MfuPV1	<i>Alpha</i>-PV	KT944080
HPV159	<i>Beta</i> -PV	HE963025	MfuPV2	<i>Alpha</i>-PV	MH469677

^a GenBank database (NCBI) is available at <https://www.ncbi.nlm.nih.gov/genbank/>.

PV – papillomavirus; HPV – human papillomavirus; AgPV – *Alouatta guariba* papillomavirus; CgPV – *Colobus guereza* papillomavirus; MfPV – *Macaca fascicularis* papillomavirus; MmPV – *Macaca mulatta* papillomavirus; PhPV – *Papio hamadryas* papillomavirus; PpPV – *Pan paniscus* papillomavirus; SscPV – *Saimiri sciureus* papillomavirus; MfuPV – *Macaca fuscata* papillomavirus