

							
		10	20	30	40	50	60
PDB 7UAJ B		-----MFQ	DPQERPRKLP	QLCTELQTTI	HDIILECVYC	KQQLLRREVY	DFAFRDLCIV
16CNTZ01 E6		MHQKRTAMFQ	DPQERPRKLP	QLCTELQTTI	HEIILECVYC	KQQLLRREVY	DFAFRDLCIV
PDB 6SLM A		MFKNPAERPR	KLHELSSALE	IPYDELRLNC	VYCKGQLTET	EVLDFAFSDL	TIVYRDDTPH
31CNTZ04 E6		MFKNPAERPR	KLHELSSALE	IPYDELRLNC	VYCKGQLTET	EVLDFAFSDL	TIVYRDDTPH
PDB 4XR8 C		MFQDPQERPR	KLPQLCTELQ	TTIHDIILEC	VYCKQQLLRR	EVYDFAFRDL	CIVYRDGNPY
33CNTZ01 E6		MFQDTEEKPR	TLHDLCALE	TTIHNIELQC	VECKKPLQRS	EVYDFAFADL	TVVYREGNPF
PDB 4XR8 C		MFQDPQERPR	KLPQLCTELQ	TTIHDIILEC	VYCKQQLLRR	EVYDFAFRDL	CIVYRDGNPY
35CNTZ01 E6		MFQDPAERP	KLHDLCAVE	ESIHEICLNC	VYCKQELQRS	EVYDFACYDL	CIVYREGQPY
PDB 4XR8 C		MFQDPQERPR	KLPQLCTELQ	TTIHDIILEC	VYCKQQLLRR	EVYDFAFRDL	CIVYRDGNPY
52CNTZ05 E6		MFEDPATRPR	TLHELCEVLE	ESVHEIRLQC	VQCKKELQRR	EVYKFLFTDL	RIVYRDNNPY
PDB 4XR8 C		MFQDPQERPR	KLPQLCTELQ	TTIHDIILEC	VYCKQQLLRR	EVYDFAFRDL	CIVYRDGNPY
58CNTZ01 E6		MFQDAEEKPR	TLHDLCALE	TSVHEIELKC	VECKKTLQRS	EVYDFVFADL	RIVYRDGNPF
							
		70	80	90	100	110	120
PDB 7UAJ B		YRDGNPYAVC	DKCLKFYSKI	SEYRHYCYSL	YGTTLQYQYN	KPLSLLIRC	INCQKPLSPE
16CNTZ01 E6		YRDGNPYAVC	DKCLKFYSKI	SEYRHYCYSL	YGTTLQYQYN	KPLCDLLIRC	INCQKPLCPE
PDB 6SLM A		GVCTKCLRFY	SKVSEFRWYR	YSVYGTTLK	LTNKGISDLL	IRCITCQRPL	SPEEKQRHLD
31CNTZ04 E6		GVCTKCLRFY	SKVSEFRWYR	YSVYGTTLK	LTNKGICDLL	IRCITCQRPL	CPEEKQRHLD
PDB 4XR8 C		AVCDKCLKFY	SKISEYRHYS	YSLYGTTLQ	QYNKPLSLL	IRCINCQKPL	SPEEKQRHLD
33CNTZ01 E6		GICKLCLRFL	SKISEYRHYN	YSVYGNLTLEQ	TVKKPLNEIL	IRCIICQRPL	CPQEKKRHVD
PDB 4XR8 C		AVCDKCLKFY	SKISEYRHYS	YSLYGTTLQ	QYNKPLSLL	IRCINCQKPL	SPEEKQRHLD
35CNTZ01 E6		GVCMKCLKFY	SKISEYRRYR	YSVYGETLEK	QCNKQLCHLL	IRCITCQKPL	CPVEKQRHLE
PDB 4XR8 C		AVCDKCLKFY	SKISEYRHYS	YSLYGTTLQ	QYNKPLSLL	IRCINCQKPL	SPEEKQRHLD
52CNTZ05 E6		GVCIMCLRFL	SKISEYRHYQ	YSLYGKTLLE	RVRKPLSEIT	IRCIICQTPL	CPEEKERHVN
PDB 4XR8 C		AVCDKCLKFY	SKISEYRHYS	YSLYGTTLQ	QYNKPLSLL	IRCINCQKPL	SPEEKQRHLD
58CNTZ01 E6		AVCKVCLRL	SKISEYRHYN	YSLYGDTLEQ	TLKKCLNEIL	IRCIICQRPL	CPQEKKRHVD
							
		130	140	150			
PDB 7UAJ B		EKQRHLDKKQ	RFHNIRGRWT	GRCMSCSRSS	RTRRETQL		
16CNTZ01 E6		EKQRHLDKKQ	RFHNIRGRWT	GRCMSCSRSS	RTRRETQL		
PDB 6SLM A		KKKRFHNIGG	RWTGRCIACW	RRPRTETQV			
31CNTZ04 E6		KKKRFHNIGG	RWTGRCIACW	RRPRTETQV			
PDB 4XR8 C		KKQRFHNIRG	RWTGRCMSCS	RSSRTRR--			
33CNTZ01 E6		LNKRFHNISG	RWAGRCAACW	RSRRRETAL			
PDB 4XR8 C		KKQRFHNIRG	RWTGRCMSCS	RSSRTRR--			
35CNTZ01 E6		EKKRFHNIGG	RWTGRCMSCW	KPTRRETEV			
PDB 4XR8 C		KKQRFHNIRG	RWTGRCMSCS	RSSRTRR--			
52CNTZ05 E6		ANKRFHNIMG	RWTGRCSECW	RPRPVTQV			
PDB 4XR8 C		KKQRFHNIRG	RWTGRCMSCS	RSSRTRR--			
58CNTZ01 E6		LNKRFHNISG	RWTGRCACW	RPRRRQTQV			

Figure S3. The template-target pairwise sequence alignment for α -9 HPV E6