Additional File 5: Table S4 Substitutions observed between putative epitopes. Only shown for positions that had more than one putative epitope, to allow comparison of acceptable substitution.

1 substitution (26 positions)

Protein	Position	Peptide	Supertype restriction
NP	202	RLMRTNFLL .M.......	A2
VP35	227	IMYDHLPGF L	A2
VP40	46	TPSNPLRPI ...S.....	B7
VP40	92	IPIWLPLGV ..T......	B7
VP40	168	LPQYFTFDL I........	B7
VP40	172	FTFDLTALK .....A...	A3
VP40	250	VPIDPTRNI I........	B7
Pre-295 All GP	25	ILFQRTFSI ....K....	A2
Post-295 GP	342	MASENSSAM ....T.	B7
Post-295 GP	387	STYNTPVYK .....L...	A3
VP30	235	LIMFITAFL .....A...	A2
VP30	249	LPCESSAVV .....A...	B7
VP30	254	SAVVVSGLR .....T...	A3
VP24	89	SPLWALRVI .....V...	B7
L	71	LPIDFIVPI V	B7
L	111	TLFLKYYLK ....R	A3
L	209	AMDWYQTSV ......A..	A2
L	267	YPNFKIVSM ..D......	B7
L	319	FLTQMHLAV ..I......	A2
L	474	IISDLSIFI V	A2
L	542	LPQYRNFSF .....S...	B7
L	861	AAFHTFFSV ..L......	A2
L	981	TSFLRQIVR ......T..	A3
L	1487	TLDNFLYYL .....I...	A2
L	1554	SISSFLTFV ......A..	A2
L	1938	KLYEAVHKL ......Y..	A2

2 substitutions (7 positions)

Protein	Position	Peptide	Supertype restriction
VP40	18	YPARSNSTI ..V...... ......P..	B7
Post-295 GP	481	LITNTIAGV ..A...... ....A....	A2
L	251	TLISKIAEV ....I .....L...	A2
L	1137	EQFKVVWLK .....F... ....R	A3
L	1464	LLYSFGAFV ....L. ....I.	A2
L	1468	FGAFVSYYL ......H.. ....I....	A2
L	1592	FLHQIVELL ..Y...... ......A..	A2

More than 2 substitutions (6 positions)

Protein	Position	Peptide	Supertype restriction
VP35	312	RPVPPSPKI .....L... ....A. A........ A......A.	B7
VP40	316	SPASLPAVV ....I ....L .....Q... ....M.	B7
VP24	22	VLSDLCNFL ......I.. ....F.... ......T..	A2
L	855	FPCRITAAF .....A... ....L ....M....	B7
L	1524	MSIDPHFSI ....F. ....L.... V	A2
L	1868	IVSGMTTPR ....T.... ......A.. .....I...	A3