

Table S1: B-cell epitopes on the pandemic genomes

Proteins	Epitope ID	Epitope Sequences
HA	20836	<i>GLFGAIAGF*</i>
HA	20838	<i>GLFGAIAGFIE</i>
HA	97348	<i>GLFGAIAGFIEGGW</i>
HA	133590	GMVDGWYG
HA	62335	SVSSFERFEIFPK
HA	133748	YNAELLV
NA	97177	<i>AELPF</i>
NA	97246	DNSIRIGSKGDVVFVIREPFISCSHLECRTFFLTQGALLNDKH
NA	97748	VNSDTVGVSWPDGAELPFTID
M2	97650	SLLTEVET
M1	37043	LKTRPILSPLTKGILGFVFTLTVPSERGLQRRRFVQNALNGNGD
M1	129610	PLTKGILGFVFT
NP	15381	FDERRNKYLEEHPSAGKDPKKTGGPI
NP	17539	FQTAAQR
NP	45359	NPGNAEIEDLIFLAR
NP	58052	SGGNTNQQR
NP	67436	TYQRTRALV
PB1	97407	KAGLLVSDGGPNLY
PB1	97236	DAVATTHSWIPKRNRSL
PB2	97293	EVLGTGNLQTLKIRVHEGYEEFTMVGRRATAILR
HA	91060	N140, P152, K168, K169

- Italic letters represent the core sequence of nested epitopes.