

**Table S2.** Homology of the epitope region of HuMAb 5A7 among the corresponding sequences derived from NCBI database.

Sequence	Number of strains		Strain name	Accession number
	Yamagata lineage	Victoria lineage		
<u>I</u> <u>G</u> <u>N</u> <u>C</u> <u>P</u> <u>I</u> <u>W</u> VKT <sup>1</sup>	1427	1399		
V-----	0	5	B/California/03/2010, B/Florida/AF2746, B/Florida/AF2747/2010, B/Nairobi/2035/2006, B/Niigata/10F554/2011	AET21655, ADY16591, ADY16592, ABN71699, AEQ49737
-----R-	2	1	B/Hawaii/08/2009 (V) <sup>2</sup> B/Kisii/6531/2008 (Y), B/Minnesota/08/2009 (Y)	AER28587, ACM45921, AER28601
--D-----	1	2	B/Parma/1/2003 (V), B/Florida/AF2750/2011 (Y), B/Pucallpa/FLU5716/2007 (V)	CAH56949, ADY16607, ACC59730
L-----	2	0	B/Kol/1013/2007, B/Kol/1266/2007	AEA51387, AEG21018
-----I-	2	0	B/Kol/583/2006, B/Kol/667/2006	AEA51386, AEG21015
K-----N-	1	0	B/Kol/1230/2007	AEA51388
--H-----	1	0	B/Shanghai/361/2002	ABP52001
--I-----	0	1	B/Kol/N2121/2010	AEG21026
--T-----	0	1	Influenza B virus	AAA43692
--Y-----	0	1	B/Rio Grande do Sul/317/2008	ADG58671
--- <b>F</b> -----	1	0	B/Rio Grande do Sul/314/2008	ADG58665
--- <b>W</b> -----	0	1	B/Xuanwu/1/1982	AAK68702
-----T-----	1	0	B/Pennsylvania/11/2007	ACA33432
-----V-----	0	1	B/Lisboa/7/2002	ABY71796
-----Q-	0	1	B/Shanghai/35/1984	AAK68706
-----K	0	1	B/Managua/4485.05/2010	AEQ39337
-----P	1	0	B/Kol/1253/2007	AEA51390

<sup>1</sup>Critical amino acid residues for the epitope of 5A7 are shown in bold and underlined.

<sup>2</sup>(V) is Victoria lineage and (Y) means Yamagata lineage.