

Genetic and antigenic evolution of H1 swine influenza A viruses isolated in Belgium and the Netherlands from 2014 through 2019

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Supplementary Table S1. Range of percentage amino acid (aa) identities in the HA1 and antigenic sites of the isolates and reference viruses

A Virus Isolates clade	EU H1av reference viruses					
	swFI82 (Clade 1C.1)		swBE98 (Clade 1C.2)		swG05, swG10 (Clade 1C.2.1)	
	HA1	Antigenic sites	HA1	Antigenic sites	HA1	Antigenic sites
1C.2.1	85.3 – 88.7	70.0 – 82.0	91.1 – 94.6	78.0 – 90.0	92.0 – 96.8	82.0 – 96.0
1C.2.2	84.1 – 87.2	76.0 – 82.0	88.7 – 91.7	84.0 – 90.0	91.1 – 95.1	88.0 – 96.0
1B.1.2.1	71.9 – 73.7	34.0 – 40.0	69.4 – 70.9	40.0 – 44.0	68.5 – 70.6	36.0 – 42.0
1A.3.3.2	74.0 – 77.7	52.0 – 66.0	70.9 – 74.0	58.0 – 68.0	69.7 – 73.4	54.0 – 64.0
B Virus isolates clade	EU H1hu and related human seasonal reference viruses					
	swSC94 (Clade 1B.1)		swG99, swG02, swG12 (Clade 1B.1.2.1)		TW86 (Clade 1B.1-like)	
	HA1	Antigenic sites	HA1	Antigenic sites	HA1	Antigenic sites
1C.2.1	69.7 – 72.4	40.0 – 48.0	68.2 – 71.2	34.0 – 44.0	70.6 – 73.6	40.0 – 48.0
1C.2.2	69.1 – 70.9	42.0 – 44.0	67.3 – 70.0	36.0 – 40.0	70.6 – 72.5	40.0 – 44.0
1B.1.2.1	89.2 – 91.1	72.0 – 86.0	87.5 – 96.0	74.0 – 94.0	89.0 – 90.5	76.0 – 82.0
1A.3.3.2	70.0 – 72.2	36.0 – 46.0	68.5 – 71.9	32.0 – 42.0	70.3 – 73.1	36.0 – 44.0
C Virus isolates clade	US H1 δ and related human seasonal reference viruses					
	swL10 (Clade 1B.2.2.2)		swAL16 (Clade 1B.2.2.1)		NC99, BR07 (Other human 1B.2)	
	HA1	Antigenic sites	HA1	Antigenic sites	HA1	Antigenic sites
1C.2.1	70.2 – 72.9	42.0 – 48.0	69.6 – 72.4	46.0 – 52.0	69.6 – 73.6	40.0 – 48.0
1C.2.2	69.0 – 70.9	40.0 – 44.0	69.0 – 70.9	44.0 – 48.0	69.3 – 72.1	40.0 – 44.0
1B.1.2.1	82.5 – 84.6	58.0 – 70.0	80.4 – 82.5	60.0 – 68.0	82.8 – 84.9	58.0 – 70.0
1A.3.3.2	70.6 – 72.4	42.0 – 50.0	70.9 – 73.0	42.0 – 50.0	70.6 – 72.7	38.0 – 48.0
D Virus isolates clade	H1pdm09 and US H1 γ reference viruses					
	CA09, SL15 (Clade 1A.3.3.2)		swOH07 (Clade 1A.3.3.3)			
	HA1	Antigenic sites	HA1	Antigenic sites		
1C.2.1	68.8 – 73.7	56.0 – 72.0	71.9 – 74.6	60.0 – 70.0		
1C.2.2	71.6 – 74.3	60.0 – 68.0	73.4 – 74.3	64.0 – 66.0		
1B.1.2.1	68.8 – 71.6	32.0 – 44.0	70.3 – 71.6	36.0 – 42.0		
1A.3.3.2	88.7 – 97.2	68.0 – 94.0	84.4 – 89.3	66.0 – 80.0		

The reference viruses include the European avian-like H1 (EU H1av) (A), the European human-like H1 (EU H1hu) and related human H1 (other human 1B.1-like) (B), the United States H1 δ (US H1 δ) and related human H1 (other human 1B.2) (C) and the 2009 pandemic H1 (H1pdm09) and US H1 γ viruses (D). Full virus names: swFI82 -

A/swine/Finestère/2899/1982; swBE98 - A/swine/Belgium/1/1998; swG05 -
A/swine/Gent/132/2005; swG10 - A/swine/Gent/28/2010; swSC94 -
A/swine/Scotland/410440/1994; swG99 - A/swine/Gent/7625/1999; G02 -
A/swine/Gent/177/2002; G12 - A/swine/Gent/26/2012; TW86 - A/Taiwan/1/1986; swIL10 -
A/swine/Illinois/A0104020/2010; swAL16 - A/swine/Alabama/A01104091/2016; NC99 -
A/New Caledonia/20/1999; BR07 - A/Brisbane/59/2007; CA09 - A/California/04/2009; SL15
- A/Slovenia/2903/2015; OH07 - A/swine/Ohio/511445/2007