

Phylogenetic tree influenza A(H1N1)pdm09 hemagglutinin (HA1), amino acids

Season 2018-2019

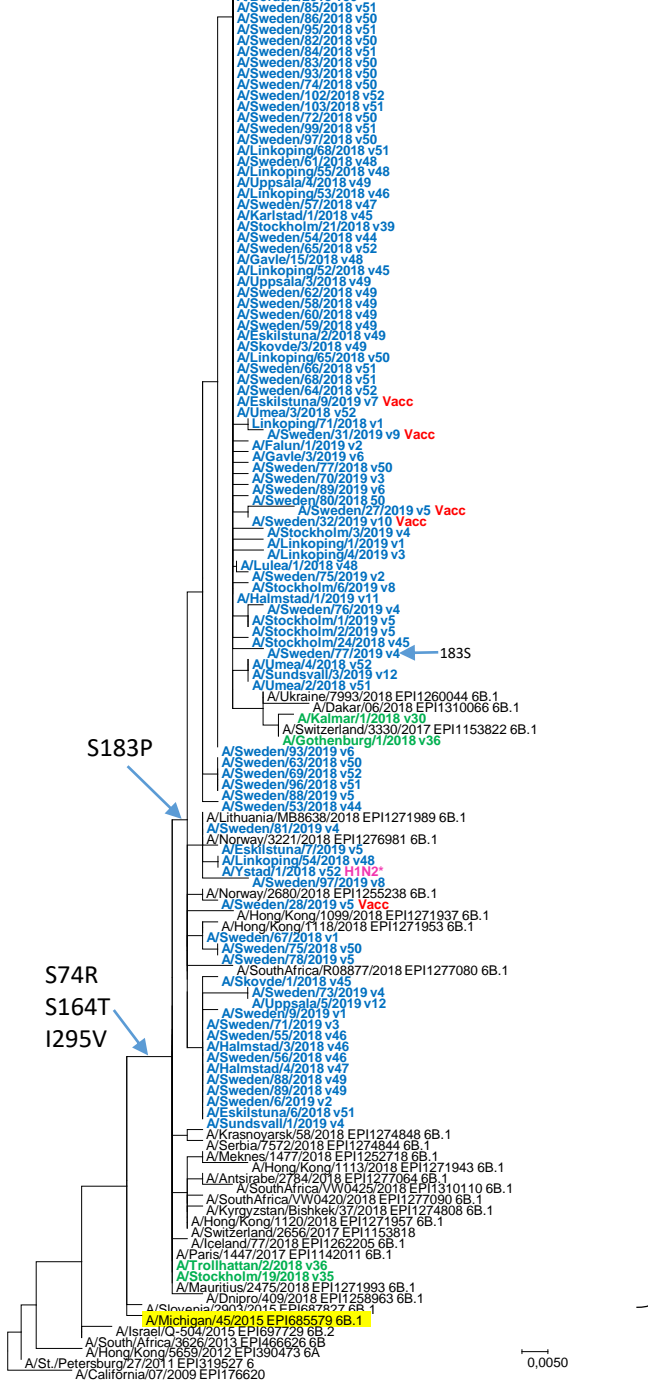
Vacc=vaccinated

Collected pre-season

Reference virus

Vaccine virus (tri- and quadrivalent)

A/Sweden/100/2019 v13
A/Boras/4/2019 v12
A/Sweden/69/2019 v3
A/Sweden/23/2019 v5
A/Sweden/90/2019 v6
A/Sweden/87/2019 v5
A/Sweden/16/2019 v3
A/Sweden/95/2019 v7
A/Sweden/86/2019 v5
A/Sweden/74/2019 v4
A/Sweden/54/2019 v2
A/Sweden/94/2019 v7
A/Sweden/83/2019 v5
A/Sweden/89/2019 v8
A/Sweden/21/2019 v4
A/Sweden/80/2019 v4
A/Sweden/82/2019 v5
A/Sweden/85/2019 v5
A/Sweden/65/2019 v2
A/Sweden/91/2019 v6
A/Sweden/72/2019 v4
A/Sweden/64/2019 v2
A/Sweden/92/2019 v6
A/Sweden/96/2019 v7
A/Sweden/99/2019 v9
A/Linkoping/3/2019 v10
A/Stockholm/5/2019 v6
A/Kristianstad/1/2019 v8
A/Stockholm/6/2019 v8
A/Malmoe/2/2019 v5
A/Eskilstuna/10/2019 v8
A/Stockholm/4/2019 v1
A/Gavle/2/2019 v5
A/Sweden/25/2019 v5 Vacc
A/Skovde/2/2019 v6 Vacc
A/Sweden/26/2019 v5 Vacc
A/Bollnas/1/2019 v6
A/Uppsala/3/2019 v6
A/Eskilstuna/8/2019 v6
A/Linkoping/5/2019 v5
A/Sweden/13/2019 v3 Vacc
A/Linkoping/2/2019 v3
A/Sweden/14/2019 v4
A/Sweden/10/2019 v1
A/Sundsvall/2/2019 v4
A/Hovras/1/2019 v3 Vacc
A/Gavle/1/2019 v4
A/Sweden/1/2019 v1
A/Sweden/2/2019 v2
A/Linkoping/69/2018 v51
A/Vasteras/1/2019 v1
A/Linkoping/7/2018 v51
A/Linkoping/3/2019 v1
A/Uppsala/5/2018 v52
A/Sweden/14/2018 v1
A/Falun/2/2019 v1
A/Malmoe/1/2018 v50
A/Sweden/3/2019 v1
A/Sweden/7/2019 v2 Vacc
A/Visby/1/2019 v2 Vacc
A/Lund/1/2019 v5
A/Boras/2/2018 v56
A/Sweden/85/2018 v51
A/Sweden/86/2018 v50
A/Sweden/95/2018 v51
A/Sweden/82/2018 v50
A/Sweden/84/2018 v51
A/Sweden/83/2018 v50
A/Sweden/93/2018 v50
A/Sweden/74/2018 v50
A/Sweden/102/2018 v52
A/Sweden/103/2018 v51
A/Sweden/72/2018 v50
A/Sweden/99/2018 v51
A/Sweden/97/2018 v50
A/Linkoping/68/2018 v51
A/Sweden/61/2018 v48
A/Linkoping/55/2018 v48
A/Uppsala/4/2018 v49
A/Linkoping/53/2018 v46
A/Sweden/57/2018 v47
A/Karlstad/1/2018 v45
A/Stockholm/21/2018 v39
A/Sweden/54/2018 v44
A/Sweden/55/2018 v52
A/Gavle/15/2018 v48
A/Linkoping/52/2018 v45
A/Uppsala/3/2018 v49
A/Sweden/62/2018 v49
A/Sweden/58/2018 v49
A/Sweden/60/2018 v49
A/Sweden/59/2018 v45
A/Eskilstuna/2/2018 v49
A/Skovde/3/2018 v49
A/Linkoping/65/2018 v50
A/Sweden/66/2018 v51
A/Sweden/68/2018 v51
A/Sweden/64/2018 v52
A/Eskilstuna/9/2018 v7 Vacc
A/Umea/3/2018 v52
A/Linkoping/71/2018 v1
A/Sweden/31/2019 v9 Vacc
A/Falun/1/2019 v2
A/Gavle/3/2019 v6
A/Sweden/77/2019 v50
A/Sweden/70/2019 v3
A/Sweden/89/2019 v6
A/Sweden/60/2018 v50
A/Sweden/72/2019 v5 Vacc
A/Sweden/32/2019 v10 Vacc
A/Stockholm/3/2019 v4
A/Linkoping/1/2019 v1
A/Linkoping/4/2019 v3
A/Lulea/1/2018 v48
A/Sweden/73/2019 v2
A/Stockholm/6/2019 v8
A/Halmstad/1/2019 v11
A/Sweden/76/2019 v4
A/Stockholm/1/2019 v5
A/Stockholm/2/2019 v5
A/Stockholm/24/2019 v45
A/Sweden/77/2019 v4
A/Umea/4/2018 v52
A/Sundsvall/3/2019 v12
A/Umea/2/2018 v51
A/Ukraine/7993/2018 EPI1260044 6B.1
A/Dakar/08/2018 EPI1310066 6B.1
A/Kalmar/1/2018 v30
A/Switzerland/3330/2017 EPI1153822 6B.1
A/Gothenburg/1/2018 v36
A/Sweden/83/2019 v6
A/Sweden/63/2018 v50
A/Sweden/69/2018 v52
A/Sweden/96/2018 v51
A/Sweden/88/2019 v5
A/Sweden/53/2018 v44
A/Lithuania/MB8838/2018 EPI1271989 6B.1
A/Sweden/81/2019 v4
A/Norway/3221/2018 EPI1276981 6B.1
A/Eskilstuna/7/2019 v6
A/Linkoping/54/2019 v48
A/Ystad/1/2018 v52 H1N2*
A/Sweden/97/2019 v6
A/Norway/2680/2018 EPI1255238 6B.1
A/Sweden/28/2019 v5 Vacc
A/Hong Kong/1099/2018 EPI1271937 6B.1
A/Hong Kong/118/2018 EPI1271953 6B.1
A/Sweden/67/2018 v1
A/Sweden/75/2018 v50
A/Sweden/19/2019 v5
A/SouthAfrica/R08877/2018 EPI1277080 6B.1
A/Skovde/1/2018 v45
A/Sweden/73/2019 v4
A/Uppsala/5/2019 v12
A/Sweden/91/2019 v1
A/Sweden/71/2019 v3
A/Sweden/55/2018 v46
A/Halmstad/3/2018 v46
A/Sweden/56/2018 v46
A/Halmstad/4/2018 v47
A/Sweden/88/2018 v49
A/Sweden/89/2018 v49
A/Sweden/6/2019 v2
A/Eskilstuna/6/2018 v51
A/Sundsvall/1/2019 v4
A/Krasnovarsk/58/2018 EPI1274848 6B.1
A/Serbia/7572/2018 EPI1274844 6B.1
A/Meknes/1477/2018 EPI1252718 6B.1
A/Hong Kong/1113/2018 EPI1271943 6B.1
A/Anzari/be/2784/2018 EPI1277064 6B.1
A/SouthAfrica/W0425/2018 EPI1310110 6B.1
A/SouthAfrica/W0420/2018 EPI1277080 6B.1
A/Kyrgyzstan/Bishkek/37/2018 EPI1274808 6B.1
A/Hong Kong/1120/2018 EPI1271957 6B.1
A/Switzerland/2836/2017 EPI1153281
A/Iceland/77/2018 EPI1262205 6B.1
A/Paris/1447/2017 EPI1142011 6B.1
A/Trollhattan/2/2018 v36
A/Stockholm/19/2018 v35
A/Mauritius/2475/2018 EPI1271993 6B.1
A/Dnipro/409/2018 EPI1266963 6B.1
A/Slovenia/2003/2018 EPI1687827 6B.1
A/Michigan/45/2015 EPI685579 6B.1
A/Israel/Q-504/2015 EPI697729 6B.2
A/SouthAfrica/3626/2013 EPI466626 6B
A/Hong Kong/5659/2012 EPI390473 6A
A/SU/Petersburg/27/2011 EPI31957
A/California/07/2009 EPI176620



* A/Ystad/1/2018 v52 H1N2

Novel influenza A(H1N2) seasonal reassortant identified in a patient sample, Sweden, January 2019. [Euro Surveill.](https://doi.org/10.2807/1560-7917.ES.2019.24.9.1900124) 2019;24(9):pii=1900124. <https://doi.org/10.2807/1560-7917.ES.2019.24.9.1900124>

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