

Influenza A(H1N1)pdm09 egg-derived candidate vaccine viruses for development and production of vaccines for use in the 2019-20 northern hemisphere influenza season

Antigenic and genetic analyses are performed by the WHO Collaborating Centres of the Global Influenza Surveillance and Response System (GISRS). Unless otherwise indicated all candidate vaccine viruses posted on this table have passed two-way haemagglutination inhibition (HI) test.

[National or Regional control authorities approve the composition and formulation of vaccines used in each country](#)

21 February 2019

Candidate vaccine viruses (CVVs)¹Antigenically like A/Brisbane/02/2018

Parent virus	Candidate vaccine virus	Type of virus or reassortant	Developing institute	Available from
A/Brisbane/02/2018	Wild type virus			WHO CCs
	IVR-190	Classical	VIDRL, Australia	CDC, USA FCI, UK NIBSC, UK NIID, Japan VIDRL, Australia

Institutes contact details for candidate vaccine viruses orders/information:

CDC: dwentworth@cdc.gov (Subject: CVV request)

FCI: whocc@crick.ac.uk

NIBSC: standards@nibsc.org or enquiries@nibsc.org

NIID: flu-vaccine@nih.go.jp

VIDRL: whoflu@influenzacentre.org

WHO CCs: http://www.who.int/influenza/gisrs_laboratory/collaborating_centres/list/en/

¹ Have passed two-way testing

Influenza A(H3N2) egg-derived candidate vaccine viruses for development and production of vaccines for use in the 2019-20 northern hemisphere influenza season

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21 March 2019

Candidate vaccine viruses (antigenically like A/Kansas/14/2017)

Parent virus	Candidate vaccine virus	Type of virus or reassortant	Developing institute	Available from
A/Kansas/14/2017	Wild type virus			CDC, USA NIBSC, UK VIDRL, Australia
	X-327	Classical	NYMC	NIBSC, UK CDC, USA
	IVR-195*	Classical	Seqirus	VIDRL

**IVR-195 has passed a one-way HI test, a two-way HI test will be done on 28 March.*

Institutes contact details for candidate vaccine virus orders/information:

CDC: xxu@cdc.gov (Subject: CVV request)
CCDC: whocc-china@cnic.org.cn
FCI: whocc@crick.ac.uk
NIBSC: standards@nibsc.org or enquiries@nibsc.org
NIID: flu-vaccine@nih.go.jp
NYMC: doris_bucher@nymc.edu
VIDRL: whoflu@influenzacentre.org

¹ http://www.who.int/immunization_standards/national_regulatory_authorities%20/offices/en/

Influenza B Yamagata lineage egg-derived¹ candidate vaccine viruses for development and production of vaccines for use in the 2019-20 northern hemisphere influenza season

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21 February 2019

Candidate vaccine viruses

Parent virus	Candidate vaccine virus	Type of virus or reassortant	Developing institute	Available from
B/Phuket/3073/2013	Wild type virus			WHO CCs WHO ERLs
	BVR-1B	Classical	Seqirus	VIDRL, Australia
B/California/12/2015	Wild type virus			CDC, USA
	NYMC BX-59A	Classical	NYMC	CDC, USA NIBSC, UK NYMC, USA
	NYMC BX-59B	Classical	NYMC	CDC, USA NIBSC, UK NYMC, USA
B/Brisbane/9/2014	Wild type virus			WHO CCs WHO ERLs
B/Utah/09/2014	Wild type virus			CDC, USA NIBSC, UK
B/Hong Kong/432/2013	Wild type virus			CDC, USA NYMC, USA
B/Arizona/10/2015	Wild type virus			CDC, USA NIBSC, UK
	NYMC BX-63	Classical	NYMC, USA	NIBSC, UK NYMC, USA
	NYMC BX-63A	Classical	NYMC, USA	NIBSC, UK NYMC, USA
B/Hong Kong/3417/2013	Wild type virus			CDC, USA NYMC, USA
	NYMC BX-57	Classical	NYMC	CDC, USA NYMC, USA

¹ For cell culture-derived candidate vaccine viruses and reference reagents please see http://www.who.int/influenza/vaccines/virus/candidates_reagents/summary_b_yam_cvv-cell_nh1920.pdf

Influenza B Victoria lineage egg-derived candidate vaccine viruses for development and production of vaccines for use in the 2019-20 northern hemisphere influenza season

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21 February 2019

Candidate vaccine viruses

Parent virus	Candidate vaccine virus	Type of virus or reassortant	Developing institute	Available from
B/Colorado/06/2017	Wild type virus			CDC, USA NIBSC, UK NIID Japan
	NYMC BX-71	Classical	NYMC, USA	NYMC, USA
B/Alabama/2/2017	Wild type virus			CDC, USA NIBSC, UK
B/Maryland/15/2016	Wild type virus			CDC, USA NIBSC, UK NIID Japan
	NYMC BX-69	Classical	NYMC, USA	CDC, USA NIBSC, UK NYMC, USA
	NYMC BX-69A		NYMC, USA	CDC, USA NIBSC, UK NYMC, USA

Institutes contact details for candidate vaccine viruses orders/information:

CDC: dwentworth@cdc.gov (Subject: CVV request)

NIBSC: standards@nibsc.org or enquiries@nibsc.org

NIID: flu-vaccine@nih.go.jp

NYMC: doris_bucher@nymc.edu

WHO CCs and ERLs: http://www.who.int/influenza/gisrs_laboratory/collaborating_centres/list/