

Influenza A(H1N1)pdm09 egg-derived¹ candidate vaccine viruses for development and production of vaccines for use in the 2022 southern 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 specified, 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](#)²

24 September 2021 (Last updated 10 January 2022)

Candidate vaccine viruses (CVVs) (antigenically like A/Victoria/2570/2019 (Egg derived) - Accession number (GISAID): EPI_ISL_417210

Parent virus	Candidate vaccine virus	Type of virus or reassortant	Developing institute	Available from
A/Indiana/02/2020	Wild type virus			WHO CCs and WHO ERLs
	X-349	Classical	NYMC	NYMC, USA NIID, Japan NIBSC, UK
	X-349A	Classical	NYMC	NYMC, USA NIID, Japan NIBSC, UK
A/Victoria/2570/2019	Wild type virus			WHO CCs and WHO ERLs
	IVR-215	classical	Seqirus	
A/Victoria/3/2020	Wild type virus			WHO CCs and WHO ERLs
	IVR-216	classical	Seqirus	
A/Victoria/1/2020	Wild type virus			WHO CCs and WHO ERLs
	IVR-217	classical	Seqirus	

WHO CCs and ERLs contact details for candidate vaccine viruses orders/information:

CCDC: whocc-china@cnic.org.cn

CDC: pdx1@cdc.gov (Subject: CVV request)

FCI: whocc@crick.ac.uk

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

NIID: flu-vaccine@nih.go.jp

¹ For cell-derived candidate vaccine viruses and reference reagents please see <https://www.who.int/teams/global-influenza-programme/vaccines/who-recommendations/candidate-vaccine-viruses>

² https://www.who.int/immunization_standards/national_regulatory_authorities%20/offices/

NYMC: doris_bucher@nymc.edu
 VIDRL: whoflu@influenzacentre.org

Reference antigens (freeze dried)

Parent virus	Starting materials		Ref Ag lot number	Unitage (µg HA/ml)	Available from
	Candidate vaccine virus	Egg or cell			
A/Victoria/2570/2019	IVR-215	Egg	H1-Ag-2018	59	CBER/FDA, USA
			H1-Ag-2016	49	
			20/232	49	NIBSC, UK
			2021/137B	96	TGA, Australia
A/Victoria/1/2020	IVR-217	Egg	2021AH1A	54	NIID, Japan
			2021AH1B	66	

New antigen shown in blue

Sheep antisera

Purified HA from		Order lot number	Available from
Parent virus	Egg or cell		
A/Victoria/2570/2019 - like	Egg	H1-Ab-2109	CBER/FDA, USA
		20/234	NIBSC, UK
		2021AH1-1	NIID, Japan
		AS443	TGA, Australia

ERLs contact details for reagents orders/information:

CBER: CBERshippingrequests@fda.hhs.gov
 NIBSC: standards@nibsc.org or enquiries@nibsc.org
 NIID: flu-vaccine@nih.go.jp
 TGA: influenza.reagents@health.gov.au

For other candidate vaccine viruses and potency testing reagents, please go to <https://www.who.int/teams/global-influenza-programme/vaccines/who-recommendations/candidate-vaccine-viruses>

For general enquiries, please contact gisrs-whohq@who.int