

Influenza B Victoria lineage cell culture-derived¹ candidate vaccine viruses or recombinant vaccine antigen(s) for development and production of vaccines for use in the 2024-2025 northern hemisphere influenza season

Human influenza virus isolation using a certified cell line (e.g. MDCK 33016 PF^a, NIID-MDCK^b) has been performed by WHO Collaborating Centres (CCs) of the WHO Global Influenza Surveillance and Response System (GISRS). The WHO CCs also perform antigenic and genetic analysis on the cell cultured Candidate Vaccine Viruses (ccCVVs). Unless otherwise specified, these ccCVVs have passed two-way haemagglutination inhibition (HI) tests against the cell culture propagated prototype viruses matching the WHO recommendation². **No other testing (including adventitious agents) has been performed** on these ccCVVs by the WHO CCs. National or regional control authorities generally approve the manufacture, composition and formulation of influenza vaccines used in each country³. Manufacturers should consult relevant national or regional control authorities regarding the suitability of using these ccCVVs for influenza vaccine production.

^a Derived from MDCK cell line approved for use for human vaccine manufacture in compliance with Ph. Eur. general chapter 5.2.3 by Novartis/Seqirus

^b Derived from MDCK cell line developed by the National Institute of Infectious Diseases (NIID), Japan

23 February 2024

Cell culture-based candidate vaccine viruses (ccCVVs), antigenically like B/Austria/1359417/2021 (MDCK derived) - Accession number (GISAID): EPI_ISL_983345

ccCVV	Certified cell line used for isolation and propagation	Developing institute	Passage level available	Available from
B/Connecticut/01/2021	MDCK 33016 PF	CDC, USA	P2	CDC, USA
B/Singapore/WUH4618/2021		VIDRL, Australia	P2	VIDRL, Australia

For recombinant vaccine antigen(s), it is recommended that the protein sequence(s) closely matches the sequence of B/Austria/1359417/2021 (MDCK-SIAT cell-derived).

Institutes contact details for candidate vaccine virus orders/information:

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

VIDRL: whoflu@influenzacentre.org

¹ For egg-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/teams/global-influenza-programme/vaccines/who-recommendations>

³ <https://www.who.int/initiatives/who-listed-authority-reg-authorities>

Reference antigens (freeze-dried)

Parent virus	Starting materials		Ref Ag Lot number	Unitage (µg HA/ml)	Available from
	Candidate vaccine virus	Egg or cell			
B/Singapore/WUH4618/2021	Wild type virus	cell	B(v)-Ag-2115	63	CBER/FDA, USA
			23/268	48	MHRA, UK
B/Austria/1359417/2021		recombinant	B(v)-Ag-2207	60	CBER/FDA, USA
			B(v)-Ag-2306	50	

Sheep antisera

Purified HA from		Order Lot number	Available from
Parent virus	Egg or Cell		
B/Austria/1359417/2021-like	Egg	B(v)-Ab-2202	CBER/FDA, USA
		B(v)-Ab-2308	
		22/228	MHRA, UK
		AS446-1	TGA, Australia
		AS452	

Contact details of WHO Essential Regulatory Laboratories for reagents orders/information:

CBER: CBERshippingrequests@fda.hhs.gov

MHRA: 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