

Influenza A(H1N1)pdm09 cell culture-derived¹ candidate vaccine viruses or recombinant vaccine antigen(s) for development and production of vaccines for use in the 2026-2027 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) or virus neutralization (VN) 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

27 February 2026 (Last updated 6 May 2026)

Cell culture-based candidate vaccine viruses (ccCVVs), antigenically-like A/Missouri/11/2025 (MDCK SIAT cell-derived) - Accession number (GISAID):EPI_ISL_20077100

ccCVV	Candidate Vaccine Virus	Type of virus or reassortant	Certified cell line used for isolation and propagation	Developing institute	Passage level available	Available from
A/Nebraska/21/2025	Wild type virus		MDCK 33016 PF	CDC, USA	P1 or P2	CDC, USA
A/South Queensland/47/2025	Wild type virus		MDCK 33016 PF	VIDRL, Australia	P2	VIDRL, Australia
A/Sydney/78/2025	Wild type virus		MDCK 33016 PF		P2	
	CVR-344		QMC	Seqirus	P7	
A/Tasmania/318/2025	Wild type virus		MDCK 33016 PF	VIDRL, Australia	P2	
	CVR-359		QMC	Seqirus	P8	
	CVR-351		QMC	Seqirus	P7	

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>

For recombinant protein- or nucleic acid-based vaccines, it is recommended that the protein sequence(s) closely matches the sequence of A/Missouri/11/2025 (MDCK SIAT cell-derived).

Institutes contact details for candidate vaccine virus orders/information:

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

VIDRL: enquiries@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/Tasmania/318/2025	CVR-351	Cell	2025/162B*	103	TGA, Australia
A/Missouri/11/2025		Recombinant HA	H1-Ag-2601*	55	CBER/FDA, USA

**New reagent shown in blue*

Sheep antisera

Purified HA from		Order lot number	Available from
Parent virus	Egg or cell		
A/Missouri/11/2025-like	Egg	AS467	TGA, Australia
		25/224	MHRA, UK
		H1-Ab-2512	CBER/FDA, USA

WHO Essential Regulatory Laboratories (ERLs) contact details for reagent orders and other information:

MHRA: standards@mhra.gov.uk or enquiries@mhra.gov.uk

NIID: flu-vaccine@nih.go.jp

TGA: influenza.reagents@tga.gov.au

For reagents available from **CBER**, email CBERShippingRequests@fda.hhs.gov.

For information of other type and subtype 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