Influenza B Yamagata lineage cell culture-derived [1] candidate vaccine viruses for development and production of vaccines for use in the 2018-2019 northern hemisphere influenza season

Human influenza virus isolation using a certified cell line (eg 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) as indicated. Unless otherwise noted these ccCVVs have passed two-way haemagglutination inhibition (HI) tests against the cell culture propagated prototype viruses matching the WHO recommendation[2]. **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 country[3]. Manufacturers should consult appropriate national or regional control authorities regarding the suitability of these ccCVV 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

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Cell culture-based candidate vaccine viruses (ccCVVs)

ccCVV	Certified cell line used for isolation and propagation	Developing institute	Passage level available	Available from
B/Singapore/INFTT-16-0610/2016#	MDCK 33016 PF	VIDRL, Australia	P2	VIDRL, Australia
B/Singapore/INFKK-16-0569/2016#	MDCK 33016 PF	VIDRL, Australia	P2	VIDRL, Australia
B/Brisbane/9/2014	MDCK 33016 PF	VIDRL, Australia	P2	VIDRL, Australia

Institutes contact details for candidate vaccine viruses orders/information:

VIDRL: whoflu@influenzacentre.org

The list of all WHO Collaborating Centres (CCs) and WHO Essential Regulatory Laboratories (ERLs) for influenza can be found on the WHO web site at
http://www.who.int/influenza/gisrs_laboratory/collaborating_centres/

[1] For egg-derived candidate vaccine viruses and reference reagents please see http://www.who.int/influenza/vaccines/virus/candidates_reagents/summary_b_yam_cvv_nh1819.pdf

[2] http://www.who.int/influenza/vaccines/virus/recommendations/2018_19_north/en/

[3] http://www.who.int/immunization_standards/national_regulatory_authorities /offices/en/

Reference antigens (freeze-dried) for use with vaccines produced using ccCVV – To be updated

Parent virus	Starting materials		Ref Ag Lot number	Unitage (µgHA/ml)	Available from
	Candidate vaccine virus	Certified Cell line			

Sheep antisera to ccCVV derived antigen – To be updated

Purified HA from		Order Lot number	Available From
Parent virus	Certified Cell line		

ERLs contact details for reagents orders/information:
NIBSC: standards@nibsc.org or enquiries@nibsc.org
TGA: influenza.reagents@health.gov.au
NIID: flu-vaccine@nih.go.jp
CBER: fda.gov/cber

For other candidate vaccine viruses and potency testing reagents, please go to http://www.who.int/influenza/vaccines/virus/candidates_reagents/home/en/

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