

## Influenza A(H3N2) lineage cell culture-derived<sup>1</sup> candidate vaccine viruses for development and production of vaccines for use in the 2017 southern hemisphere influenza season

Human influenza virus isolation using a certified cell line (eg MDCK 33016 PF<sup>a</sup>, NIID-MDCK<sup>b</sup>) 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<sup>2</sup>. **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<sup>3</sup>. Manufacturers should consult appropriate national or regional control authorities regarding the suitability of these ccCVVs for influenza vaccine production.

<sup>a</sup> 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

<sup>b</sup> Derived from MDCK cell line developed by the National Institute of Infectious Diseases (NIID), Japan

**18 October 2016** (*revised 20 December 2016*)

### Cell culture-based candidate vaccine viruses (ccCVVs)

ccCVV	Certified cell line used for isolation and propagation	Developing institute	Passage level available	Available from
<b>*A/Singapore/GP2050/2015</b>	MDCK 33016 PF	VIDRL, Australia	P2	VIDRL, Australia
<b>A/Hawaii/47/2014</b>	MDCK 33016 PF	CDC, USA	P2	CDC, USA

#### \*Updates

#### Institutes contact details for candidate vaccine viruses orders/information:

CDC: [gll9@cdc.gov](mailto:gll9@cdc.gov); [xxu@cdc.gov](mailto:xxu@cdc.gov)

VIDRL: [whoflu@influenzacentre.org](mailto: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/list/en/](http://www.who.int/influenza/gisrs_laboratory/collaborating_centres/list/en/)

<sup>1</sup> For egg-derived candidate vaccine viruses and reference reagents please see

[http://www.who.int/influenza/vaccines/virus/candidates\\_reagents/summary\\_b\\_yam\\_cvv\\_sh17.pdf](http://www.who.int/influenza/vaccines/virus/candidates_reagents/summary_b_yam_cvv_sh17.pdf)

<sup>2</sup> [http://www.who.int/influenza/vaccines/virus/recommendations/2017\\_south/en/](http://www.who.int/influenza/vaccines/virus/recommendations/2017_south/en/)

<sup>3</sup> [http://www.who.int/immunization\\_standards/national\\_regulatory\\_authorities/offices/en/](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](mailto:standards@nibsc.org) or [enquiries@nibsc.org](mailto:enquiries@nibsc.org)

TGA: [influenza.reagents@tga.gov.au](mailto:influenza.reagents@tga.gov.au)

NIID: [flu-vaccine@nih.go.jp](mailto:flu-vaccine@nih.go.jp)

CBER: [fda.gov/cber](http://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/](http://www.who.int/influenza/vaccines/virus/candidates_reagents/home/en/)

For general enquiries, please contact [gisrs-whohq@who.int](mailto:gisrs-whohq@who.int)