

Summary of status of development and availability of variant¹ influenza A(H3N2) candidate vaccine viruses and potency testing reagents

Antigenic and genetic analyses are performed by the WHO Collaborating Centres of the Global Influenza Surveillance and Response System (GISRS). Unless otherwise indicated 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](#)

3 October 2023

Candidate vaccine viruses*

Antigenic prototype	Candidate vaccine virus	Type of virus or reassortant	Developing institute	Available from
A/Minnesota/11/2010	Wild type virus			WHO CCs
	NYMC X-203*	Conventional reassortant	NYMC, USA	CDC, USA NYMC, USA
	NYMC X-203A*	Conventional reassortant	NYMC, USA	CDC, USA NYMC, USA
A/Indiana/10/2011	Wild type virus			WHO CCs
	NYMC X-213*	Conventional reassortant	NYMC, USA	CDC, USA NYMC, USA
A/Ohio/28/2016	IDCDC-RG55C*	Reverse genetics	CDC, USA	CDC, USA

**These viruses are candidate vaccine viruses which have passed relevant safety testing. They can be handled under BSL-2 enhanced containment².*

¹ Joint FAO, OIE, WHO announcement of the standardization of terminology for the variant A(H3N2) virus recently infecting humans at https://cdn.who.int/media/docs/default-source/influenza/global-influenza-surveillance-and-response-system/nomenclature/standardization_of_terminology_influenza_virus_variants_update.pdf?sfvrsn=d201f1d5_6

² [Guidelines for the safe development and production of vaccines to human pandemic influenza viruses and influenza viruses with pandemic potential, Annex 3, TRS No 1016 \(who.int\)](#)

Candidate vaccine viruses in preparation

Antigenic prototype	Type of virus or reassortant	Developing Institute	Available from
A/Ohio/28/2016	Conventional reassortant	MHRA, UK	Pending
A/Ohio/13/2017-like	Reverse genetics	CDC, USA	Pending
A/swine/Iowa/23TOSU0850/2023	Reverse genetics	CDC, USA	Pending

Reference antigens

Starting materials		Ref. Ag. Lot number	Unitage (µgHA/ml)	Available from
Parent virus	Candidate vaccine virus			
A/Minnesota/11/2010	NYMC X-203	71	75	CBER/FDA, USA**

Sheep antisera

Parent virus	Order Lot number	Available from
A/Minnesota/11/2010	H3-Ab-1206	CBER/FDA, USA**

** All requests for reagents to CBER will be evaluated upon justification provided. Distribution may be restricted

Institutes contact details for candidate vaccine viruses orders/information:

CDC: nmb7@cdc.gov (Subject: CVV request)

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

NYMC: doris_bucher@nymc.edu

WHO CCs: <https://www.who.int/initiatives/global-influenza-surveillance-and-response-system/who-collaboration-center-erl?CxitPEOtTWx0xUd5TJdODSXcnyJqzYd7FZeivpn7xcl=>

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

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