

Summary of status of development and availability of A(H9N2) 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	Clade	Candidate vaccine virus	Type of virus or reassortant	Developing institute	Available from
A/Hong Kong/1073/99	G1	Wild type virus			MHRA, UK
A/chicken/Hong Kong/G9/97	Y280/G9	Wild type virus			WHO CCs
		NIBRG-91*	Reverse genetics	MHRA, UK	MHRA, UK
		IBCDC-2*	Classical reassortant	CDC, USA	CDC, USA
A/Hong Kong/33982/2009	G1	Wild type virus			WHO CCs
		IBCDC-RG26*	Reverse genetics	CDC, USA	CDC, USA
A/Bangladesh/994/2011	G1	Wild type virus			WHO CCs
		IDCDC-RG31*	Reverse genetics	CDC, USA	CDC, USA
A/Hong Kong/308/2014	Y280/G9	Wild type virus			WHO CCs
		SJ008*	Reverse genetics	SJCRH, USA	SJCRH, USA
A/Anhui-Lujiang/39/2018	Y280/G9	Wild type virus			CCDC, China
		IDCDC-RG61A*	Reverse genetics	CCDC, China CDC, USA	CDC, USA
A/Oman/2747/2019	G1	Wild type virus			WHO CCs
		IDCDC-RG66A*†	Reverse genetics	CDC, USA	CDC, USA

†New CVV shown in blue

* These viruses are candidate vaccine viruses which have passed relevant safety testing. They can be handled under BSL-2 enhanced containment¹.

¹ [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	Clade	Type	Developing Institute	Available from
A/Anhui-Lujiang/39/2018	Y280/G9	Conventional	MHRA, UK	Pending
A/Anhui-Tianjiaan/11086/2022†	Y280/G9	Reverse genetics	CDC, USA	Pending

†New CVV shown in blue

Reference antigens (freeze-dried)

Parent virus	Starting Materials		Ref Ag / Lot number	Unitage (µg HA/mL)	Available from
	CVV	Egg or Cell			
A/chicken/Hong Kong/G9/97	NIBRG-91	Egg	08/208	84	MHRA, UK
A/Hong Kong/1073/99	Wild-type	Egg	08/208	80	MHRA, UK
A/Anhui-Lujiang/39/2018	SeqHS_Sys22_03.5	cell	H9-Ag-2211	112	CBER/FDA, USA

Sheep antisera

Purified HA from		Order Lot number	Available from
Parent virus	Egg or Cell		
A/Hong Kong/1073/99	Egg	07/146	MHRA, UK
		10/214 [§]	MHRA, UK
A/chicken/Hong Kong/G9/97		08/202	MHRA, UK

[§] Anti NA serum for tests of neuraminidase identification

Institutes and contact details for candidate vaccine virus orders and other information:

CCDC: whocc-china@cnic.org.cn

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

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

SJCRH: richard.webby@stjude.org

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 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/zoonotic-influenza-viruses-and-candidate-vaccine-viruses>