

Summary of status of development and availability of A(H7) 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](#)

28 September 2022

Candidate vaccine viruses*

Subtype	Antigenic prototype	Clade	Candidate vaccine virus	Type of virus or reassortant	Developing Institute	Available from
H7N1	A/mallard/Netherlands/12/2000 [#]	Eurasian	Wild type virus			WHO CCs
			NIBRG-63*	Reverse genetics	NIBSC (MHRA), UK	NIBSC (MHRA), UK
	A/turkey/Italy/3889/99	Eurasian	Wild type virus			NIBSC (MHRA), UK
H7N2	A/turkey/Virginia/4529/2002	American	Wild type virus			WHO CCs
			IBCDC-5*	Classical reassortant	CDC, USA	CDC, USA
	A/New York/107/2003	American	Wild type virus			WHO CCs
			NIBRG-109*	Reverse genetics	NIBSC (MHRA), UK	NIBSC (MHRA), UK
H7N3	A/Canada/rv444/2004	American	Wild type virus			WHO CCs
			161984-B*	Reverse genetics	SJCRH, USA	SJCRH, USA CDC, USA
	A/mallard/Netherlands/12/2000	Eurasian	Wild type virus			WHO CCs
			NIBRG-60*	Reverse genetics	NIBSC (MHRA), UK	NIBSC (MHRA), UK
H7N7	A/mallard/Netherlands/12/2000 and A/mallard/Netherlands/2/2000	Eurasian	Wild type viruses			WHO CCs
			IBCDC-1*	Classical reassortant	CDC, USA	CDC, USA

[#] HA from A/mallard/Netherlands/12/2000 and NA from A/mallard/Netherlands/2/2000.

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

¹ <https://www.who.int/publications/m/item/biosafety-risk-assessment-and-guidelines-for-human-influenza-pandemic-vaccines>

Candidate vaccine viruses in preparation

Subtype	Antigenic prototype	Clade	Developing Institute	Available from
H7N4	A/chicken/Jiangsu/1/2018-like	Eurasian	CCDC, China	Pending

Reference antigens (freeze-dried)

Parent virus	Starting materials		Ref Ag / Lot number	Unitage (µgHA/mL)	Available from
	CVV	Egg or Cell			
A/mallard/Netherlands/12/2000	NIBRG-60	Egg	07/336	115	NIBSC (MHRA), UK
A/New York/107/2003	NIBRG-109	Egg	08/362	To be announced	NIBSC (MHRA), UK

Sheep antisera

Purified HA from		Order Lot number	Available from
Parent virus	Egg or Cell		
A/mallard/Netherlands/12/2000	Egg	07/278	NIBSC (MHRA), UK
A/New York/107/2003	Egg	09/148	NIBSC (MHRA), UK
A/chick/Italy/1374/99 (H7N1)	Egg	02/294	NIBSC (MHRA), UK

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

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

NIBSC (MHRA): standards@nibsc.org or enquiries@nibsc.org

SJCRH: richard.webby@stjude.org

CCDC: whocc-china@cnic.org.cn

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

Candidate vaccine viruses and potency testing reagents for influenza A(H7N9) can be found on the WHO web site at http://www.who.int/influenza/vaccines/virus/candidates_reagents/a_h7n9/en/

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>

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