

Summary of status of development and availability of A(H5N1) 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. [National or Regional control authorities approve the composition and formulation of vaccines used in each country.](#)

15 November 2011

Candidate vaccine viruses

Updated H5N1 nomenclature: http://www.who.int/influenza/gisrs_laboratory/h5n1_nomenclature/en/index.html

Parent virus	Clade	Candidate vaccine virus	Developing institute	Available from
A/Vietnam/1194/2004	1	NIBRG-14	NIBSC, UK	NIBSC, UK
A/Vietnam/1203/2004	1	SJRG-161052	CDC, USA ST. JUDE, USA HKU, China	ST.JUDE; USA
A/Cambodia/R0405050/2007	1.1	NIBRG-88	NIBSC, UK	NIBSC, UK
A/duck/Hunan/795/2002	2.1	SJRG-166614	ST. JUDE, USA HKU, China	ST.JUDE; USA
*A/Indonesia/5/2005	2.1.3.2	CDC-RG2	CDC, USA	CDC, USA
A/chicken/India/NIV33487/2006	2.2	IBCDC-RG7	NIV, India CDC, USA	NIV, India CDC, USA
A/bar headed goose/Qinghai/1A/2005	2.2	SJRG-163222	ST. JUDE, USA HKU, China	ST.JUDE, USA
A/whooper swan /Mongolia/244/2005	2.2	SJRG-163243	ST. JUDE, USA	ST.JUDE, USA

***Availability updated**

Candidate vaccine viruses continued

Parent virus	Clade	Candidate Vaccine Virus	Developing institute	Available from
A/turkey/Turkey/1/2005	2.2.1	NIBRG-23	NIBSC, UK	NIBSC, UK
A/Egypt/2321-NAMRU3/2007	2.2.1	IDCDC-RG11	CDC, USA	CDC, USA
[#] A/Egypt/N03072/2010	2.2.1	IDCDC-RG29	CDC, USA	CDC, USA
A/Egypt/3300-NAMRU3/2008	2.2.1.1	IDCDC-RG13	CDC, USA	CDC, USA
A/common magpie/Hong Kong/5052/2007	2.3.2.1	SJRG-166615	ST. JUDE, USA HKU, China	ST. JUDE, USA
A/duck/Laos/3295/2006	2.3.4	CBER-RG1	CBER/FDA, USA	CBER/FDA, USA
A/Anhui/1/2005	2.3.4	IBCDC-RG6	CDC, USA	CDC, USA
A/Japanese white eye/ HK/1038/2006	2.3.4	SJRG-164281	ST. JUDE, USA HKU, China	ST. JUDE, USA
A/chicken/Hong Kong/AP156/2008-like	2.3.4	SJ-002	ST. JUDE, USA HKU, China	ST. JUDE, USA
A/goose/Guiyang/337/2006	4	SJRG-165396	ST. JUDE, USA HKU, China	ST. JUDE, USA
A/chicken/Vietnam/NCVD-016/2008	7.1	IDCDC-RG12	CDC, USA	CDC, USA

[#]A/Egypt /N03072/2010 is an A/Egypt/1394-NAMRU3/2007-like virus

Candidate vaccine viruses in preparation

Parent virus	Clade	Candidate Vaccine Virus	Developing Institute	Available from
A/barn swallow/Hong Kong/D10-1161/2010-like	2.3.2.1		ST. JUDE, USA HKU, China	Pending
A/Hubei/1/2010	2.3.2.1		CDC, USA	Pending
A/chicken/Vietnam/NCVD-03/2008-like	7.1		CDC, USA	Pending

Viruses proposed by WHO for candidate vaccine virus preparation

Parent virus	Clade	Developing Institute
A/chicken/Bangladesh/11rs1984-30/2011-like	2.3.4.2	Pending

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

CBER/FDA: Centre for Biologics Evaluation and Research/ Food and Drug Administration, USA:

Zhiping.ye@fda.hhs.gov

NIBSC: National Institute for Biological Standards and Control ,UK :standards@nibsc.hpa.org.uk

ST. JUDE: St. Jude Children's Research Hospital, USA: richard.webby@stjude.org

NIV: National Institute of Virology, India: acm1750@rediffmail.com

HKU: University of Hong Kong , China Hong Kong, SAR: malik@hkucc.hku.hk

CDC: Centers for Disease Control and Prevention , Atlanta USA: rdonis@cdc.gov

Reference antigens (freeze dried)

Starting materials		Ref. Ag.	Unitage	Available from
Parent virus	CVV	Lot#	(µgHA/ml)	
A/Vietnam/1194/2004	NIBRG-14	09/184	67	NIBSC, UK
A/turkey/Turkey/1/2005	NIBRG-23	07/112	80	NIBSC, UK
A/Anhui/1/2005	IBCDC-RG6	07/290	99	NIBSC, UK
A/Cambodia/R0405050/2007	NIBRG-88	08/216	TBA	NIBSC, UK
A/Vietnam/1203/2004	161052 (SJCRH)	50	152	CBER/FDA, USA
A/Indonesia/05/2005	IBCDC-RG2	0904	77	CBER/FDA, USA
A/Bar-headed goose/ Qinghai/1A/2005	163222 (SJCRH)	63	69	CBER/FDA, USA

Sheep antisera

Purified HA from	Order Lot #	Available from
Parent virus		
A/Anhui/1/2005	07/338	NIBSC, UK
	08/142	NIBSC, UK
A/Cambodia/R0405050/2007	08/210	NIBSC, UK
A/Hong Kong/489/97	98/666	NIBSC, UK
A/Vietnam/1203/2004	S-124, S-125	CBER/FDA, USA
A/Indonesia/05/2005	S-7854	CBER/FDA, USA
A/Bar-headed goose/Qinghai/1A/2005	S-112SP	CBER/FDA, USA

The above-listed potency testing reagents for A(H5N1) vaccines have been developed with support from WHO CCs, ERLs and designated Influenza A(H5N1) developing institutes, and calibrated by the Essential Regulatory Laboratories (ERLs) that provide advice to WHO as part of the influenza vaccine virus selection and development process.

ERLs contact details for reagent orders and other information:

CBER/FDA: Rajesh.Gupta@fda.hhs.gov

NIBSC: standards@nibsc.hpa.org.uk

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: <http://www.who.int/influenza/vaccines/virus/en/>