



Influenza Reagent
Influenza virus infectious NIB-79
NIBSC code: 11/222
Instructions for use
(Version 1.0, Dated 26/03/2012)

1. INTENDED USE

Reagent 11/222 is prepared from NIB-79 (A/Victoria/361/2011 (H3N2) x A/Puerto Rico/8/34 (H1N1)) which was processed for freeze drying in 250 µl volumes as described by Campbel, PJ, Journal of Biological Standardisation, 1974, 2, 249-267. The passage history of NIB-79 is attached

2. CAUTION

This preparation is not for administration to humans or animals in the human food chain.

The material is not of human or bovine origin. As with all materials of biological origin, this preparation should be regarded as potentially hazardous to health. It should be used and discarded according to your own laboratory's safety procedures. Such safety procedures should include the wearing of protective gloves and avoiding the generation of aerosols. Care should be exercised in opening ampoules or vials, to avoid cuts.

3. UNITAGE

No unitage is assigned to this material

4. CONTENTS

Country of origin of biological material: United Kingdom.
Each ampoule contains 250µl (nominal) of infectious influenza virus as freeze dried allantoic fluid from embryonated SPF premium plus hen's eggs.

5. STORAGE

Store in the dark at -20°C or below

Please note: because of the inherent stability of lyophilized material, NIBSC may ship these materials at ambient temperature.

6. DIRECTIONS FOR OPENING

DIN ampoules have an 'easy-open' coloured stress point, where the narrow ampoule stem joins the wider ampoule body. Various types of ampoule breaker are available commercially. To open the ampoule, tap the ampoule gently to collect material at the bottom (labelled) end and follow manufacturers instructions provided with the ampoule breaker.

7. USE OF MATERIAL

Reconstitute the contents of one ampoule of reagent with 250µl of sterile distilled water. Leave for a minimum of 5 minutes before use to allow for complete solution of freeze dried material. A range of dilutions (e.g. 10⁻³ to 10⁻⁵) should be made in a suitable medium for initial cultivation.

8. STABILITY

Reference Materials should be stored on receipt as indicated on the label.

NIBSC follows the policy of WHO with respect to its reference materials.

9. REFERENCES

NA

10. ACKNOWLEDGEMENTS

NA

National Institute for Biological Standards and Control,
Potters Bar, Hertfordshire, EN6 3QG. T +44 (0)1707 641000, nibsc.org
WHO International Laboratory for Biological Standards,
UK Official Medicines Control Laboratory

11. FURTHER INFORMATION

Further information can be obtained as follows;

This material: enquiries@nibsc.org

WHO Biological Standards:

<http://www.who.int/biologicals/en/>

JCTLM Higher order reference materials:

<http://www.bipm.org/en/committees/jc/jctlm/>

Derivation of International Units:

http://www.nibsc.org/standardisation/international_standards.aspx

Ordering standards from NIBSC:

<http://www.nibsc.org/products/ordering.aspx>

NIBSC Terms & Conditions:

http://www.nibsc.org/terms_and_conditions.aspx

12. CUSTOMER FEEDBACK

Customers are encouraged to provide feedback on the suitability or use of the material provided or other aspects of our service. Please send any comments to enquiries@nibsc.org

13. CITATION

In all publications, including data sheets, in which this material is referenced, it is important that the preparation's title, its status, the NIBSC code number, and the name and address of NIBSC are cited and cited correctly.

14. MATERIAL SAFETY SHEET

Classification in accordance with Directive 2000/54/EC, Regulation (EC)

No 1272/2008: Not applicable or not classified

Physical and Chemical properties	
Physical appearance: White powder	Corrosive: No
Stable: Yes	Oxidising: No
Hygroscopic: No	Irritant: No
Flammable: No	Handling: See caution, Section 2
Other (specify): Live influenza virus	
Toxicological properties	
Effects of inhalation:	Likelihood of influenza virus infection
Effects of ingestion:	Not established, avoid ingestion
Effects of skin absorption:	Not established, avoid contact with skin
Suggested First Aid	
Inhalation:	Seek medical advice
Ingestion:	Seek medical advice
Contact with eyes:	Wash with copious amounts of water. Seek medical advice
Contact with skin:	Wash thoroughly with water.
Action on Spillage and Method of Disposal	
Spillage of contents should be taken up with absorbent material wetted with a virucidal agent. Rinse area with an appropriate virucidal agent followed by water. Absorbent materials used to treat spillage should be treated as biologically hazardous waste.	

15. LIABILITY AND LOSS

In the event that this document is translated into another language, the English language version shall prevail in the event of any inconsistencies between the documents.

Unless expressly stated otherwise by NIBSC, NIBSC's Standard Terms and Conditions for the Supply of Materials (available at



http://www.nibsc.org/About_Us/Terms_and_Conditions.aspx or upon request by the Recipient) ("Conditions") apply to the exclusion of all other terms and are hereby incorporated into this document by reference. The Recipient's attention is drawn in particular to the provisions of clause 11 of the Conditions.

16. INFORMATION FOR CUSTOMS USE ONLY

Country of origin for customs purposes*: United Kingdom * Defined as the country where the goods have been produced and/or sufficiently processed to be classed as originating from the country of supply, for example a change of state such as freeze-drying.
Net weight: NA
Toxicity Statement: Non-toxic
Veterinary certificate or other statement if applicable. Attached: No

Passage history of NIB-79

Passage	Lot	Laboratory
E1 – E4		NIBSC, Hertfordshire, UK
E5	34540	NIBSC, Hertfordshire, UK

Derivation of NIB-79

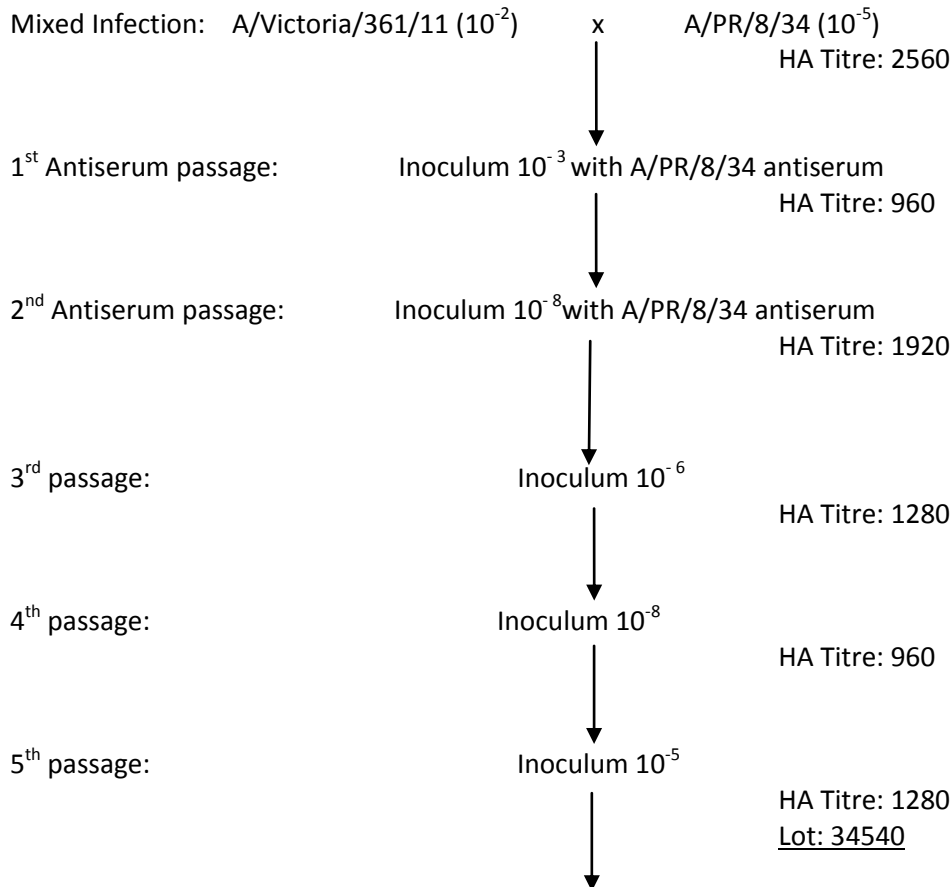
A/Victoria/361/2011 (H3N2)-like High Growth Reassortant

Strain: A/Victoria/361/2011

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Received from WHO Melbourne # SL/1110498-1, E3
Passage undertaken at NIBSC #34320, E4



Total number of passages since mixed infection= E5

SPF eggs were used for all passages.

RT-PCR/RFLP analysis indicates that NIB-79 has HA and NA genes from A/Victoria/361/11 and

M, NP, PB1, PB2, PA and NS genes from A/PR/8/34 making it a 6:2 reassortant.

Results of one way HI test provided by National Institute of Medical Research, Mill Hill, London



Antigenic analyses of influenza A H3N2 viruses (Guinea Pig RBC with 20nM Osetamivir) (29/02/2012)												
Viruses	Collection Date	Passage History	A/Perth 16/09 F35/11	A/Vic 208/09 F7/10	A/Ala 5/10 F27/10	A/HK 3969/11 F27/11	A/Stock 18/2011 F28/11	A/Iowa 19/2010 F15/11	A/Fin 190/11 F01/12	A/Eng 259/11 F02/12	A/Norway 1789/11 F03/12	
Viruses	Collection Date	Passage History	A/Vic	Group 1 A/Vic	Group 2 A/Vic	Group 3A A/Vic	NIB-79	Group 6 NIB-79	Group 164 IVR-164	Group 165 IVR-165	Group 165 IVR-165	
REFERENCE VIRUSES												
A/Perth/16/2009	2009-07-04	E3/E1	80	361/11	361/11	361/11	(Vic/361)	(Vic/361)	(Bris/299)	(Vic/361)		
A/Victoria/208/2009	2009-06-02	E3/E1	1280	5120	1280	NIB	2560	NIB	5120	NIB	2560	
A/Alabama/5/2010	2010-07-13	MK1/M2/SIAT2	40	F05/12	F06/12	F20/12	160	F9/12	F10/12	160	F11/12	
A/Stockholm/18/2011	2011-03-28	MDC/K2/SIAT3	80	160	160	640	640	320	320	640	320	
A/Victoria/361/2011	2010-12-30	E3/E1	2560	5120	5120	5120	5120	2560	5120	640	5120	
A/Finland/180/2011	2011-11-25	Cx/SIAT3	80	160	320	1280	640	640	1280	160	640	
A/Finland/361/11	2011-11-16	Cx/SIAT2	80	2560	1280	1280	160	1280	640	320	160	
IVR-164 (Bris/299/11)	2011-08-02	Cx/SIAT2	320	640	640	1280	640	640	1280	5120	640	
IVR-165 (Vic/361/11)		E3/D6/E1	640	640	640	1280	320	160	1280	640	1280	
TEST VIRUSES												
NIB-79		E5	160	320	160	640	80	320	320	160	640	
A/Victoria/361/2011	2011-10-24	E3/E1	160	640	320	640	80	640	640	320	640	



Results of two way HI test provided by National Institute of Medical Research, Mill Hill, London

Antigenic analyses of influenza A H3N2 viruses (Guinea Pig RBC with 20nM Oseltamivir) (15/03/2012)

Dr. John McCauley, BSc PhD
Director, WHO Collaborating Centre
For Reference and Research on
Influenza
Division of Virology



Monday, 19 March 2012

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WHO International Laboratory for Biological Standards,
UK Official Medicines Control Laboratory



Dear Othmar,

Thank you for sending your reassortant to us for characterisation and for sharing ferret sera with us.

The results with your reassortant NIB-79 was that it reacted well with three post-infection ferret sera raised against the wild-type A/Victoria/361/2011 virus and the serum raised against NIB-79 reacted well with wild-type A/Victoria/361/2011. The results of this two-way test indicate that NIB-79 is A/Victoria/361/2011-like in HI assays.

As you know, we carry out analyses in the presence of oseltamivir to circumvent any influence of the NA mediated agglutination of the red cells that are used (see Yi Pu Lin's paper in J.Virol in 2010, (<http://www.ncbi.nlm.nih.gov/pubmed/20410266>))

With best wishes,

John McCauley.