



Influenza Reagent
Influenza Virus Infectious IVR-221 (H3N2)
NIBSC code: 20/318
Instructions for use
(Version 7.00, Dated 29/03/2021)

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

1. INTENDED USE

Reagent 20/318 is prepared from IVR-221 (H3N2) (A/Tasmania/503/2020 x A/PR/8/34) which was processed in 250µl volumes as liquid stock. The derivation and known passage history of IVR-221 (H3N2) 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 vial contains 250µl (nominal) of infectious influenza virus as allantoic fluid from SPF embryonated hen's eggs.

5. STORAGE

Store in the dark at -70°C or below

6. DIRECTIONS FOR OPENING

Vials have a screw cap; an internal stopper may also be present. The cap should be removed by turning anti-clockwise. Care should be taken to prevent loss of the contents. Please note: If a stopper is present on removal of the cap, the stopper should remain in the vial or be removed with the cap.

7. USE OF MATERIAL

Ready to use

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

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/>

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

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: Clear liquid	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 an appropriate 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.

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16. INFORMATION FOR CUSTOMS USE ONLY

<p>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.</p> <p>Net weight: 0.25g per vial</p>

<p>Toxicity Statement: Non-toxic</p> <p>Veterinary certificate or other statement if applicable.</p> <p>Attached: No</p>

Passage history of IVR-221 (H3N2)

Cumulative number of passages	Passage numbers at each stage	Lot	Laboratory
E1-E5	E5	Unknown	Unknown
E6-E14	E5/D9	Lot 496B	Seqirus, Australia
E15	E5/D9/E1	46010	NIBSC, UK

Sterility: No visible contamination was detected in a variety of media (tryptose soya broth, thioglycolate broth, Sabouraud’s broth and blood agar plates) after 14 days incubation.

The HA and NA sequence of this virus is available at GISAID with the accession number EPI_ISL_1391371.



REPORT

PASSAGE HISTORY:

<i>Mixed infection passage:</i> (E5/D1)	A/Tasmania/503/2020 wild type virus @10 ⁻³ x A/Puerto Rico/8/34 (H1N1) @10 ⁻³	HA titre ≥1810
	↓	
<i>1st Antiserum Passage</i> (E5/D2)	Inoculum @ 10 ⁻³ with antiserum to A/Puerto Rico/8/34 (H1N1)	HA titre = ND
	↓	
<i>2nd Antiserum Passage</i> (E5/D3)	Inoculum @ 10 ⁻³ with antiserum to A/Puerto Rico/8/34 (H1N1)	HA titre ≥1576
	↓	
<i>1st Limit Dilution Passage</i> (E5/D4)	Inoculum @ 10 ⁻⁶	HA titre ≥1280
	↓	
<i>2nd Limit Dilution Passage</i> (E5/D5)	Inoculum @ 10 ⁻⁷	HA titre ≥ 1810
	↓	
<i>3rd Limit Dilution Passage</i> (E5/D6)	Inoculum @ 10 ⁻⁹	HA titre = 905
	↓	
<i>4th Limit Dilution Passage</i> (E5/D7)	Inoculum @ 10 ⁻¹⁰	HA titre ≥1280
	↓	
<i>5th Limit Dilution Passage</i> (E5/D8)	Inoculum @ 10 ⁻¹⁰	HA titre =640
	↓	
<i>6th Limit Dilution Passage</i> Lot 496B (E5/D9) IVR-221	Inoculum @ 10 ⁻⁵	Mean HA titre ≥ 874