



**Influenza Reagent  
Influenza Virus Infectious SAN-004A (H3N2)  
NIBSC code: 21/130  
Instructions for use  
(Version 6.0, Dated 19/05/2021)**

**1. INTENDED USE**

Reagent 21/130 is prepared from SAN-004A (H3N2) (A/Paris/2554/2019 (H3N2) x A/PR/8/1934) which was processed in 250µl volumes as liquid stock. The derivation and known passage history of SAN-004A (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:

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

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

Derivation of International Units:

[http://www.nibsc.org/standardisation/international\\_standards.aspx](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](http://www.nibsc.org/terms_and_conditions.aspx)

**12. CUSTOMER FEEDBACK**

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**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><b>Country of origin for customs purposes*:</b> 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><b>Net weight:</b> 0.25g per vial</p>
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<p><b>Toxicity Statement:</b> Non-toxic</p> <p><b>Veterinary certificate or other statement</b> if applicable.</p> <p><b>Attached:</b> No</p>
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Passage history of SAN-004A (H3N2)

Cumulative number of passages	Passage numbers at each stage	Lot	Laboratory
E1-E4	E4	Unknown	Unknown
E5-E11	E4/E7	Lot#SP-2020-004A	Sanofi, USA
E12	E4/E7/E1	46030	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\_1760115.



### Passage History

1	Co-infection passage	A/Paris/2554/2019 (H3N2) wild type virus @ $10^{-2}$ x A/Puerto Rico/8/1934 (H1N1) @ $10^{-3}$	HA titer 1024
		↓	
2	1 <sup>st</sup> antiserum passage	Inoculum @ $10^{-1}$ with A/Puerto Rico/8/1934 HANA antibodies	HA titer 32
		↓	
3	2 <sup>nd</sup> antiserum passage	Inoculum @ $10^{-1}$ with A/Puerto Rico/8/1934 HANA antibodies	HA titer 32
		↓	
4	3 <sup>rd</sup> antiserum passage	Inoculum @ $10^{-1}$ with A/Puerto Rico/8/1934 HANA antibodies	HA titer 64
		↓	
5	Amplification without antibodies/ 1 <sup>st</sup> Limit dilution passage	Inoculum @ $10^{-6}$	HA titer 128
		↓	
6	2 <sup>nd</sup> Limit dilution passage	Inoculum @ $10^{-7}$	HA titer 512
		↓	
7	3 <sup>rd</sup> Limit dilution passage	Inoculum @ $10^{-6}$	HA titer 512
		↓	
	Final amplification	Inoculum @ $10^{-5}$	HA titer 1024