Medicines & Healthcare products Regulatory Agency

NIBSC Confidence in Biological Medicines

Influenza Reagent
Influenza Virus Infectious CNIC-2602A (A/Shanghai-Huangpu/12925/2025) (H3N2)
NIBSC code: 25/294
Instructions for use
(Version 2.0, Dated 16/09/2026)

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1. INTENDED USE

Reagent 25/294 was prepared from CNIC-2602A (H3N2), a reassortant of A/Shanghai-Huangpu/12925/2025 (H3N2) and A/PR/8/34 (H1N1), which was processed in 250µL volumes as liquid stock. The derivation and known passage history of 25/294 are 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 allantoic fluid from SPF embryonated hen's eggs.

5. STORAGE

Store in the dark at -70°C or below.
Material type: Liquid – will be shipped according to the storage and shipping conditions of the product

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 are held at NIBSC within assured, temperature-controlled storage facilities. 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

N/A.

10. ACKNOWLEDGEMENTS

N/A.

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: 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, avoid inhalation
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.

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

Action on Spillage and Method of Disposal
Spillage of ampoule contents should be taken up with absorbent material wetted with an appropriate disinfectant. Rinse area with an appropriate disinfectant followed by water. Absorbent materials used to treat spillage should be treated as biological 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: 0.25g
Toxicity Statement: Non-toxic
Veterinary certificate or other statement if applicable. **Attached:** No

Passage history of CNIC-2602A (H3N2)

Cumulative number of passages	Passage numbers at each stage	Lot	Laboratory
E3	E3	Lot#: 20260119B	CNIC, China
E8	E3/E5	Lot#: 13710	CNIC, China
E9	E3/E5/E1	49910*	MHRA, UK

* The HA titre of this virus using 0.7% guinea pig red blood cells in 20 nM oseltamivir is 2048. The infectious titre is unknown.

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

The HA and NA sequence of this virus will be available at GISAID shortly and can be found by searching for "25/294".

CNIC

16/03/2026

CNIC-2602A HIGH GROWTH REASSORTANT REPORT

High Growth Reassortant	Parental Wild Type virus	Conclusion
CNIC-2602A (Lot: 20260119B) E2+E1/E5	A/Shanghai-Huangpu/12925/2025 H3N2 2a.3a.1 (K)	TWO-WAY PASS Antigenically similar to A/Darwin/1454/2025

- **Two-way HI test**

The high growth reassortant (HGR) virus was antigenically characterized by a "two-way" Hemagglutination Inhibition (HI) test. Ferret antisera raised against the prototype virus A/Darwin/1454/2025, wild type parental virus A/Shanghai-Huangpu/12925/2025 and the HGR CNIC-2602A well inhibited to each other (titers less than or equal to two fold to each other). Therefore, CNIC-2602A is antigenically similar to A/Darwin/1454/2025 and passes the two-way HI test.

- **GENETIC CHARACTERIZATION**

The HA gene of A/Shanghai-Huangpu/12925/2025 is belong to genetic clade 2a.3a.1 (K). Whole genome sequencing of CNIC-2602A was performed by NGS （GISAID accession number EPI_ISL_20362313）. Compared to the wild-type parental virus A/Shanghai-Huangpu/12925/2025 (E) (GISAID accession number EPI_ISL_20271290), CNIC-2602A contains an amino acid substitution (S228T), while no changes were identified in the NA gene.

Regarding the internal gene composition, CNIC-2602A is a 3:5 reassortant, with the M, NS and PA genes derived from A/PR/8/34, and the HA, NA, NP, PB1 and PB2 genes originating from the wild-type virus.

- **STERILITY:**

CNIC-2602A was shown to be sterile on a variety of media (Thiolglycollate Medium, Tryptone Soy Agar Medium, Sabouraud's Glucose Broth Medium and 0.5% Glucose Broth Medium) by incubation for 14 days.

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WHO Collaborating Center for Reference and Research on Influenza
National Institute for Viral Disease Control and Prevention, China CDC

Derivation of CNIC-2602A HGR

Strain: A/Shanghai-Huangpu/12925/2025

Passage undertaken at CNIC

Mixed Infection: A/Shanghai-Huangpu/12925/2025 (10^{-1}) X PR8 (10^{-6})
Lot 13710 HA Titer: 1024

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Antiserum passage: Inoculum with PR8 & NA antiserum
HA Titer: 1024

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1st Limit Dilution passage: Inoculum 10^{-8}
HA Titer: 512

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2nd Limit Dilution passage: Inoculum 10^{-6}
HA Titer: 256

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3rd Limit Dilution passage: Inoculum 10^{-5}
HA Titer: 512

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Total number of passages since mixed infection=E5

SPF eggs were used for all passages.

HA titres were determined using 1% Guinea Pig Red Blood cells.