Influenza Reagent
Influenza Antigen A/OMS/5389/88 (H3N2)(WIC-160)
NIBSC code: 89/568
Instructions for use
(Version 4.0, Dated 19/03/2008)

1. INTENDED USE
Influenza antigen reagent 89/568 is prepared for the single radial diffusion assay of A/OMS/5389/88 (H3N2) (W1C 160) antigens using an appropriate NIBSC antisera reagent.

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
The solution of the total contents of the ampoule will contain 60 micrograms of haemagglutinin antigen activity.

4. CONTENTS
Country of origin of biological material: United Kingdom.
Antigen Reagent 89/568 is prepared from formalin-inactivated, partially purified A/OMS/5389/88 (H3N2) W1C 160 virus which was suspended in TRIS-HCL buffer containing 1% (w/v) sucrose and processed for freeze-drying in 1 ml volumes as described by Campbell P J, Journal of Biological Standardization, 1974, 2, 249-267. The mean weight of 36 ampoules, test weighed was 1.0057g with a coefficient of variation of 0.07%. Antiserum Reagent 89/568 should be used according to the method described by Wood J M, Schild G C, Newman R W and Seagroatt V A, Journal of Biological Standardization, 1977, 5, 237-247, with the following modification:

The reagent has been inactivated following validated procedures used to produce human influenza vaccine that is registered in the EU. This inactivated reagent has been shown to be free from residual infectious virus by testing according to the European Pharmacopeia Compendial Assay (monograph 0158).

5. STORAGE
Please note: because of the inherent stability of lyophilized material, NIBSC may ship these materials at ambient temperature. -20°C

6. DIRECTIONS FOR OPENING
Tap the ampoule gently to collect the material at the bottom (labelled) end. Ensure ampoule is scored all round at the narrow part of the neck, with a diamond or tungsten carbide tipped glass knife file or other suitable implement before attempting to open. Place the ampoule in the ampoule opener, positioning the score at position ‘A’; shown in the diagram below. Surround the ampoule with cloth or layers of tissue paper. Grip the ampoule and holder in the hand and squeeze at point ‘B’. The ampoule will snap open. Take care to avoid cuts and projectile glass fragments that enter eyes. Take care that no material is lost from the ampoule and that no glass falls into the ampoule.

7. USE OF MATERIAL
No attempt should be made to weigh out any portion of the material
Antiserum Reagent 89/568 should be used according to the method described by Wood J M, Schild G C, Newman R W and Seagroatt V A, Journal of Biological Standardization, 1977, 5, 237-247, with the following modification:

It is recommended that Antigen Reagent 88/654 and test A/OMS/5389/88 virus antigens should be treated with Zwittergent 3-14 detergent (Calbiochem-Behring, La Jolla, CA, USA) before single-radial-diffusion assay. Suitable incubation conditions are as follows: 450 microlitres of antigen are added to 50 microlitres of 10% (w/v) Zwittergent detergent and incubated in covered containers for 30 minutes at room temperature (approx. 20°C). Dilutions of detergent-treated antigens are prepared and suitable volumes are added to wells in a single radial diffusion immunoplates.

Antigen Reagent 89/568 should be used to assay A/OMS/5389/88 antigens using antisera Reagent 88/846.

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. Users of the material wishing to refer to the declared ampoule content for use in quantitative or semi-quantitative assay methods should note that the stated content of the material is based on a small collaborative study involving WHO Essential Regulatory Laboratories (ERLs) or Official Medicines Control Laboratories (OMCLs). Studies of recovery and stability of similar antigen preparations indicate that that recovery after ampouling is likely to be close to quantitative, and that no significant loss of content would be expected during storage over at least a 10 year period.

9. REFERENCES
None

10. ACKNOWLEDGEMENTS
None

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/standards/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

Side view of ampoule opening device containing an ampoule positioned ready to open. ‘A’ is the score mark and ‘B’ the point of applied pressure.
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

<table>
<thead>
<tr>
<th>Physical and Chemical properties</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical appearance: White powder</td>
<td></td>
</tr>
<tr>
<td>Corrosive: No</td>
<td></td>
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<tr>
<td>Stable: Yes</td>
<td></td>
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<tr>
<td>Oxidising: No</td>
<td></td>
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<tr>
<td>Hygroscopic: No</td>
<td></td>
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<tr>
<td>Irritant: No</td>
<td></td>
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<tr>
<td>Flammable: No</td>
<td></td>
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<tr>
<td>Handling: See caution, Section 2</td>
<td></td>
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<tr>
<td>Other (specify): Contains inactivated human influenza virus</td>
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</tr>
</tbody>
</table>

Toxicological properties

- Effects of inhalation: Not established, 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.

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: 1g
Toxicity Statement: Non toxic
Veterinary certificate or other statement if applicable. Attached: No