Influenza Reagent
Influenza anti B/Malaysia/2506/2004 HA serum (sheep 471,472 and 473)
NIBSC code: 07/184
Instructions for use
(Version 4.0, Dated 30/07/2015)

1. INTENDED USE

Influenza antiserum reagent 07/184 is prepared in sheep for single radial diffusion assay of B/Malaysia/2506/2004 antigens. An appropriate NIBSC reagent should be included in each assay.

The antiserum reagent was prepared in SHEEP 471, 472 and 473 to the purified HA of B/Malaysia/2506/2004 virus. The HA antigen was extracted from purified virus by treatment with bromelain and purified by sedimentation on sucrose gradients (Brand, GN and Skehel, JJ, Nature, New Biology, 1972, 238, 145-147).

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. UNTAGE

No uillage is assigned to this material.

4. CONTENTS

Country of origin of biological material: United Kingdom.

The immunization schedule for all sheep was as follows: One dose of approximately 50 micrograms of HA with Freund's Complete Adjuvant (FCA) was given intramuscularly, followed two weeks later with a 10 microgram dose including Freund's Incomplete Adjuvant (FIA), a further 10 microgram dose with FIA was given five days later; two further 20 microgram doses including FIA were given at weekly intervals. Six weeks after the initial immunization, serum was collected and sodium azide (0.05% w/v) was added.

The sera were pooled, and diluted 1:2.5 with PBS buffer containing sodium azide (0.05% w/v) and filled into vials in 2ml volumes. The mean weight of 61 vials tested was 2.05g with a coefficient of variation of 0.55%.

5. STORAGE

+2-8°C

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

6. DIRECTIONS FOR OPENING

Vials have a 'flip-up' circular cap. Either on the cap or the collar of the vial, there is an indication of the point at which to lever off the cap. This exposes an area of the stopper through which reconstitution and withdrawal of the preparation can be made using a hypodermic needle and syringe. If use of a pipette is preferred, then fully remove the metal collar using, for example, forceps, taking care to avoid cuts by wearing appropriate gloves. Remove the stopper for access. Care should be taken to prevent loss of the contents.

7. USE OF MATERIAL

For the assay of antigens containing 20-50 micrograms of HA activity in 1ml, approximately 15-20µl of the undiluted Reagent should be added to 1ml agarose. It may be necessary to change the antiserum concentrations according to local laboratory conditions.

Antiserum Reagent 07/184 should be used according to the method described by Wood, JM, Schild, GC, Newman, RW and Seagroatt, VA. Journal of Biological Standardisation, 1977, 5, 237-247.

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. Once reconstituted, diluted or aliquotted, users should determine the stability of the material according to their own method of preparation, storage and use.

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

Users who have data supporting any deterioration in the characteristics of any reference preparation are encouraged to contact NIBSC. Reference materials are held at NIBSC within assured, temperature-controlled storage facilities. Reference Materials should be stored on receipt as indicated on the label.

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

<table>
<thead>
<tr>
<th>Physical and Chemical properties</th>
<th>Corrosive: No</th>
<th>Oxidising: No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stable</td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>

National Institute for Biological Standards and Control, Potters Bar, Hertfordshire, EN6 3QG. T +44 (0)1707 841000, nibsc.org
WHO International Laboratory for Biological Standards, UK Official Medicines Control Laboratory
<table>
<thead>
<tr>
<th>Hygroscopic:</th>
<th>No</th>
</tr>
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<tbody>
<tr>
<td>Irritant:</td>
<td>No</td>
</tr>
<tr>
<td>Flammable:</td>
<td>No</td>
</tr>
<tr>
<td>Handling:</td>
<td>See caution, Section 2</td>
</tr>
<tr>
<td>Other (specify):</td>
<td>Contains Sheep Serum and Sodium Azide (0.05% w/v)</td>
</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](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
- **Net weight**: 2g
- **Toxicity Statement**: Not established

*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.

Veterinary certificate or other statement if applicable.

Attached: Yes SH471-472-473
Dr. R Newman  
NIBSC  
Blanche Lane  
South Mimms  
Potters Bar  
EN6 3QG

Dear Dr Newman,

Veterinary Certificate

I certify that I examined the following 3 mule ewes at Boltons Park Farm on 18 April 2007.

UK241512 5117 (SH 471)  
UK241512 5118 (SH 472)  
UK241512 5119 (SH 473)

I found the following incidental findings during my clinical examination:
5117 (SH 471) incisors were worn.  
5118 (SH 472) incisors were worn.

In my opinion, at the time of clinical examination, the ewes were all in good health  
and there were no clinical signs of infectious disease.

John Fishwick MA VetMB DCHP MRCVS  
Senior Lecturer in Dairy Herd Medicine  
Royal Veterinary College  
Hawkshead Lane  
North Mymms  
Hatfield  
AL9 7TA