



Influenza Reagent
Influenza Anti A/mallard/England/727/2006 (H2) HA Serum (Sheep SH572)

NIBSC code: 12/250
Instructions for use
(Version 1.0, Dated 22/04/2015)

1. INTENDED USE

Influenza antiserum reagent 12/250 is prepared in sheep for single radial diffusion assay of A/mallard/England/727/2006 antigens. An appropriate NIBSC reagent should be included in each assay

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.
The antiserum reagent was prepared in sheep SH572 to the purified HA of NIBRG-211, a H2N7 reverse genetics virus made with A/mallard/England/727/2006 (HA) x A/equine/Prague/56 (NA) x A/PR/8/34. The HA antigen was extracted from inactivated and purified virus by treatment with bromelain and purified by sedimentation on sucrose gradients (Brand, CN and Skehel, JJ, Nature, New Biology, 1972, 238, 145-147.

The immunisation schedule for sheep SH572 was as follows: One dose of approximately 50 micrograms of HA with Freund's Complete Adjuvant was given intramuscularly, followed two weeks later with an approximate 10 microgram dose of HA with Freund's Incomplete Adjuvant (FIA), five further approximate 10 microgram doses of HA with FIA were given at weekly intervals. Nine weeks after the initial immunisation, serum was collected and sodium azide (0.05% w/v) was added.

The serum was treated by maintenance of pH5.5 (or lower) for 40 minutes followed by restoration of the original pH. The serum was diluted 1:1 with phosphate buffered saline containing sodium azide (0.05% w/v) and filled into vials in 2ml volumes.

5. STORAGE

+2-8°C Please see the appendix sheet attached to this IFU.
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 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

For the assay of antigens containing 20-50 micrograms of HA activity in 1ml, approximately 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 12/250 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.

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: straw coloured liquid	Corrosive: No
Stable: Yes	Oxidising: No
Hygroscopic: No	Irritant: No
Flammable: No	Handling: See caution, Section 2
Other (specify): Contains sheep serum and sodium azide	
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 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: 2g
Toxicity Statement: Non-toxic
Veterinary certificate or other statement if applicable. Attached: Yes Vet certificate. Plus FMD Inactivation Certificate and Storage Information sheet.



STORAGE OF REAGENT 12/250

NIBSC has prepared a number of reagents for single radial diffusion assay of influenza subtypes of pandemic potential.

Since it is not known when these reagents may be required, it is desirable that they have an indefinite shelf life and they are stored at NIBSC in colder conditions than reagents prepared for the assay of epidemic strains. Therefore the recommended storage temperature marked on the label for reagent 12/250 is -20°C .

However it is assumed that a customer ordering this reagent, will use it within a short period similar to that for a conventional reagent. Consequently, this reagent is not normally shipped frozen and **the recommended storage temperature is $+4^{\circ}\text{C}$** .



Royal Veterinary College
University of London

Dr Jean-Philippe Mocho MRCVS
Named Veterinary Surgeon
Royal Veterinary College
Royal College Street
LONDON
NW1 0TU

VETERINARY CERTIFICATE OF ANIMAL HEALTH

This is to certify that I have examined a Sheep with ear tag number: UK 028 8289 8440 [Virology no. SH572], which has been used in the production of blood antiserum between 22nd August 2012 and 24th October 2012. Both the ear tag number and the animals' record show that it is of UK origin.

This animal was a breeding Ewe which became surplus to requirements. In my opinion at the time of clinical examination, the ewe was in good health and showed no clinical signs of infectious disease.

Dr Jean-Philippe Mocho MRCVS
Named Veterinary Surgeon

Dr Jean-Philippe Mocho MRCVS
Phone/Fax 020 7468 5333 Mobile: 07809 099 458
Email: <jmocho@rvc.ac.uk>



Foot and Mouth Disease Virus Inactivation Certificate

This is to certify that serum collected from Sheep no. UK 0288 289 8440 [Virology no.SH572] has been treated by an APHIS approved method for inactivation of Foot and Mouth Disease Virus. The treatment method used was maintenance of pH5.5 or lower for a minimum of 40 minutes.

Dr Philip Minor
Deputy Director
National Institute for Biological Standards and Control

