WHO Reference Reagent
1st International Reference Reagent for Rubella (Live)
NIBSC code: 91/688
Instructions for use
(Version 4.0, Dated 26/02/2008)

1. INTENDED USE
This International Standard is the 1st International Reference Reagent for Rubella (Live), established by the Expert Committee on Biological Standardisation (ECBS) in 1994.

2. CAUTION
This preparation is not for administration to humans or animals in the human food chain.

The preparation contains material of human origin, and either the final product or the source materials, from which it is derived, have been tested and found negative for HBsAg, anti-HIV and HCV RNA. 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
On the basis of the results of a collaborative study the Committee assigned a titre of 3.9 log$_{10}$ to the contents of each ampoule. For practical purposes the titre may be taken as the equivalent of 8000 infectious units per ampoule.

4. CONTENTS
Country of origin of biological material: United Kingdom.

Each ampoule contains a freeze dried-residue comprising, under an atmosphere of nitrogen:
- rubella virus (RA27 vaccine strain), prepared in human diploid MRC-5 cells
- stabiliser
- human serum albumin
- neomycin

5. STORAGE

Unopened ampoules should be stored at –20ºC or below.

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

6. DIRECTIONS FOR OPENING

DIN ampoules have an ‘easy-open’ coloured stress point, where the narrow ampoule stem joins the wider ampoule body. Various types of ampoule breaker are available commercially. To open the ampoule, tap the ampoule gently to collect material at the bottom (labelled) end and follow manufactures instructions provided with the ampoule breaker.

7. USE OF MATERIAL

No attempt should be made to weigh out any portion of the freeze-dried material prior to reconstitution

Dissolve the total contents of the ampoule with 0.5ml of sterile distilled water. Rinse the ampoule with about 0.4ml of sterile distilled water and make up the total volume to 1.0ml with water. This solution will contain rubella virus at a concentration of 8000 infectious units/ml.

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


Unpublished document (1994), a copy of which may be obtained by making application to this institution.

10. ACKNOWLEDGEMENTS

Not Applicable

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/jctlm/

Derivation of International Units:
http://www.nibsc.org/standards/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>
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<tbody>
<tr>
<td>Physical appearance:</td>
</tr>
<tr>
<td>Lyophilised powder</td>
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<tr>
<td>Stable:</td>
</tr>
<tr>
<td>Hygroscopic:</td>
</tr>
<tr>
<td>Flammable:</td>
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<tr>
<td>Other (specify):</td>
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<table>
<thead>
<tr>
<th>Toxicological properties</th>
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<td>Effects of inhalation:</td>
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<td>Effects of ingestion:</td>
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<td>Effects of skin absorption:</td>
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<tr>
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<td>Inhalation:</td>
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<td>Contact with eyes:</td>
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National Institute for Biological Standards and Control, Potters Bar, Hertfordshire, EN6 3QG, T +44 (0)1707 641000, nibsc.org
WHO International Laboratory for Biological Standards, UK Official Medicines Control Laboratory
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 |
| Net weight: 0.1g |
| Toxicity Statement: Non-toxic |
| Veterinary certificate or other statement if applicable: No |

### 17. CERTIFICATE OF ANALYSIS

NIBSC does not provide a Certificate of Analysis for WHO Biological Reference Materials because they are internationally recognised primary reference materials fully described in the instructions for use. The reference materials are established according to the WHO Recommendations for the preparation, characterization and establishment of international and other biological reference standards http://www.who.int/bloodproducts/publications/TRS932Annex2_Inter_biolstandardsrev2004.pdf (revised 2004). They are officially endorsed by the WHO Expert Committee on Biological Standardization (ECBS) based on the report of the international collaborative study which established their suitability for the intended use.