Working Standard
Diphtheria Antitoxin Human Ig
NIBSC code: 00/498
Instructions for use
(Version 1.0, Dated 08/01/2019)

This material is not for in vitro diagnostic use.

1. INTENDED USE
This material can be used as a positive control sample in diphtheria immunoassays or for other research purposes. This material is NOT FOR IN VITRO DIAGNOSTIC USE.

This material is NOT INTENDED for use as a calibrator or to derive the anti-diphtheria antibody concentrations in human serum samples. For calibration of human diphtheria serology assays, a WHO International Standard is available (NIBSC product code 10/262).

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
This material is not a calibrator and has no assigned value (see contents section for information on estimated antibody concentration which is provided as a guide only).

4. CONTENTS
Country of origin of biological material: Unknown.
Each ampoule contains the freeze-dried residue from a 1 ml fill of a pooled sample of purified human immunoglobulin from 2 different manufacturers. At NIBSC, potency has been determined by in vivo toxin neutralisation test against the WHO International Standard for diphtheria antitoxin equine. The estimated potency is 3.2 IU per ampoule.

5. STORAGE
Unopened ampoules should be stored at -20°C. The ampoules contain no bacteriostat and the preparation should not be assumed to be sterile. 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 manufacturers 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.

For practical purposes, each ampoule contains the same quantity of diphtheria antitoxin. The entire contents of 1 ampoule should be completely dissolved in an accurately measured amount of sterile distilled water.

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

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>
</tr>
</thead>
<tbody>
<tr>
<td>Freeze-dried powder</td>
<td>Oxidising: No</td>
</tr>
<tr>
<td>Stable</td>
<td>Irritant: No</td>
</tr>
<tr>
<td>Hygroscopic</td>
<td>No</td>
</tr>
<tr>
<td>Flammable</td>
<td>Handling: See caution, Section 2</td>
</tr>
<tr>
<td>Other (specify)</td>
<td>Contains material of human origin</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Toxicological properties</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Effects of inhalation</td>
<td>Not established, avoid inhalation</td>
</tr>
<tr>
<td>Effects of ingestion</td>
<td>Not established, avoid ingestion</td>
</tr>
<tr>
<td>Effects of skin absorption</td>
<td>Not established, avoid contact with skin</td>
</tr>
</tbody>
</table>

**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.

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**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.

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**16. INFORMATION FOR CUSTOMS USE ONLY**

<table>
<thead>
<tr>
<th>Country of origin for customs purposes*</th>
<th>United Kingdom</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net weight</td>
<td>0.1 g</td>
</tr>
<tr>
<td>Toxicity Statement</td>
<td>Non-toxic</td>
</tr>
<tr>
<td>Veterinary certificate or other statement</td>
<td>if applicable</td>
</tr>
<tr>
<td>Attached</td>
<td>No</td>
</tr>
</tbody>
</table>

* 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.