Working Standard

Tissue Factor Reference Reagent
NIBSC code: 14/238

Instructions for use
(Version 1.0, Dated 19/03/2019)

This material is not for in vitro diagnostic use.

1. INTENDED USE

The NIBSC Reference Reagent for Tissue Factor, 14/238, consists of ampoules containing aliquots of freeze-dried recombinant tissue factor. This reference material is intended for use as a reference reagent to calibrate tissue factor preparations for use in global haemostatic assays only - such as thrombin generation test and thromboelastography.

It is not intended to potency assign tissue factor or thromboplastin reagents.

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 reference reagent has been assigned with an arbitrary unit of 100 U/ampoule (approximately 20 pmol/L when reconstituted to 1ml).

4. CONTENTS

Country of origin of biological material: United Kingdom.

A single batch of recombinant tissue factor was diluted in 10mM HEPES, 1% trehalose and 0.5% human serum albumin. The material was distributed in to approximately 10000 glass DIN ampoules coded 14/238 and freeze-dried. The mean weight of liquid content for 683 check weight ampoules was 1.0082, with a coefficient of variation of 0.39%. The mean residual moisture was 0.63% (n=12) and the mean oxygen head space was 0.17% (n=12)

5. STORAGE

Unopened ampoules should be stored in the dark at -20°C 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

Allow ampoule to warm to room temperature before reconstitution. Reconstitute with 1 ml distilled water and leave to stand at room temperature for 5 minutes prior to use. Reconstituted undiluted material should be stable for up to 4 hours when stored on melting ice.

This material is for use as a reference preparation in global coagulation assays - with a primary application in thrombin generation tests.

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

N/A

10. ACKNOWLEDGEMENTS

Dade Behring GmbH for the kind donation of recombinant tissue factor.

11. FURTHER INFORMATION

Further information can be obtained as follows:
This material: enquiries@nibsc.org
WHO Biological Standards:
http://www.who.int/biosafety/en/
JCTLM Higher order reference materials:
http://www.bipm.org/en/committees/jc/jctlm/
Derivation of International Units:
http://www.bhs.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></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical appearance:</strong></td>
<td>Corrosive: No</td>
</tr>
<tr>
<td>White freeze dried material</td>
<td></td>
</tr>
<tr>
<td>Stable: Yes</td>
<td>Oxidising: No</td>
</tr>
<tr>
<td>Hygroscopic: Yes</td>
<td>Irritant: No</td>
</tr>
<tr>
<td>Flammable: No</td>
<td>Handling: See caution, Section 2</td>
</tr>
<tr>
<td>Other (specify): Contains material of human origin</td>
<td></td>
</tr>
<tr>
<td><strong>Toxicological properties:</strong></td>
<td></td>
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<tr>
<td>Effects of inhalation: Not established, avoid inhalation</td>
<td></td>
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<tr>
<td>Effects of ingestion: Not established, avoid ingestion</td>
<td></td>
</tr>
<tr>
<td>Effects of skin absorption: Not established, avoid contact with skin</td>
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</tbody>
</table>

**Suggested First Aid**

**Inhalation:** Seek medical advice

**Ingestion:** Seek medical advice

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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 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**

<table>
<thead>
<tr>
<th>Country of origin for customs purposes*: United Kingdom</th>
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</thead>
<tbody>
<tr>
<td>* 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.</td>
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<tr>
<td>Net weight: 17mg</td>
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<tr>
<td>Toxicity Statement: Non-toxic</td>
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<tr>
<td>Veterinary certificate or other statement if applicable.</td>
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<tr>
<td>Attached: No</td>
</tr>
</tbody>
</table>