1. INTENDED USE
For use as a typing reagent.

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

The preparation contains material of bovine origin that is certified to be obtained from animals taken from a closed herd in the female line since 1980, in which no animal has been clinically suspected of having BSE and which has not been fed rations containing ruminant derived protein during that period.

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
Units of activity have not been assigned to this material. Refer to table on page 2 for recommended working concentrations.

4. CONTENTS
Country of origin of biological material: United Kingdom.
Each ampoule contains the freeze-dried powder from 1ml of cell culture supernatant concentrated approximately 24 fold. Antibody is of murine origin.

5. STORAGE
Store freeze dried ampoules and reconstituted aliquots at -20°C
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 manufacturer’s 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.
Resuspend each din ampoule with 1 ml distilled water. Ensure the entire content of each ampoule is fully resuspended.

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.

The recommended working concentrations were correct at the time of manufacture – no information is available on long term stability. Stability of the reconstituted material should be determined by the user. Users who have data supporting any deterioration in the characteristics of any reference preparation are encouraged to contact NIBSC.

9. REFERENCES

10. ACKNOWLEDGEMENTS
This material was produced from the hybridoma cell line 5DC4C8G8 provided by Dr W.D. Zollinger of the Walter Reed Army Institute of Research, Washington D.C., U.S.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/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 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>Toxicological properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical appearance: Freeze dried powder</td>
<td>Corrosive: No</td>
</tr>
<tr>
<td>Stable: Yes</td>
<td>Oxidising: No</td>
</tr>
<tr>
<td>Hygroscopic: No</td>
<td>Irritant: No</td>
</tr>
<tr>
<td>Flammable: No</td>
<td>Handling: See caution, Section 2</td>
</tr>
<tr>
<td>Other (specify): N/A</td>
<td></td>
</tr>
</tbody>
</table>

Other (specify): N/A

Suggested First Aid

Inhalation: Seek medical advice
Ingestion: Seek medical advice
Contact with eyes: Wash with copious amounts of water
Contact with skin: Wash thoroughly with water.

National Institute for Biological Standards and Control,
Potters Bar, Hertfordshire, EN6 3QG. Tel +44 (0)1707 641000, nibsc.org
WHO International Laboratory for Biological Standards,
UK Official Medicines Control Laboratory
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

* 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: 4.5g

Toxicity Statement: Toxicity not assessed

Veterinary certificate or other statement if applicable.

Attached: No

3. UNITAGE continued

The material has been tested for use in whole cell dot-blot and whole-cell ELISA as follows:

Explanation of numbering system:

<table>
<thead>
<tr>
<th>Specificity</th>
<th>Source of mAb¹</th>
<th>Isotype</th>
<th>NIBSC hybridoma stock number²</th>
<th>Resuspension</th>
<th>Concentration of reconstituted stock to use in Dot-blot</th>
<th>Concentration of reconstituted stock to use in whole-cell ELISA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meningococcal serotype P3.4</td>
<td>Zollinger 5DC4C8G8</td>
<td>IgG2b</td>
<td>4058</td>
<td>Each ampoule should be re-suspended in 1ml distilled water</td>
<td>1 in 500</td>
<td>1 in 100</td>
</tr>
</tbody>
</table>

¹. Source of mAb: The person in whose laboratory the hybridomas were isolated and their hybridoma clone designation.

². NIBSC hybridoma stock number: this number was assigned at NIBSC when we received the hybridoma cells and is for NIBSC stock control only.