



**Non WHO Reference Material  
Bordetella pertussis PT (LPF) anti-serum (mouse)  
NIBSC code: JNIIH-12  
Instructions for use  
(Version 7.0, Dated 09/04/2013)**

**This material is not for in vitro diagnostic use.**

**1. INTENDED USE**

This material is intended to be used for the characterisation of acellular pertussis vaccines from different origins. It was originally held by the Statens Serum Institut (SSI), Copenhagen, Denmark. With effect from 1st July 1997, the National Institute for Biological Standards and Control (NIBSC), Potters Bar, UK became the custodian and distributor of this material.

Details from the original SSI package insert are incorporated into this Instruction for Use.

**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 (see section 7)

**4. CONTENTS**

Country of origin of biological material: Japan.  
JNIIH - 12 is freeze dried. Each ampoule contains about 56mg of dry material with a moisture content of about 0.5%. It was freeze dried from a buffer solution containing phosphate buffered saline and glycine.

**5. STORAGE**

Unopened ampoules should be stored 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**

JNIIH-12 is a pooled freeze dried preparation of IgG (obtained by ammonium sulphate precipitation) from mice immunized against purified pertussis toxin (PT). It was manufactured by the Biken Kanonji Institute in Japan on June 22<sup>nd</sup> 1987 and replaces an earlier preparation JHIN-9, which was found to be unsuitable. Ampoules have been marked: JNIIH-12 (Japanese National Institute of Health)  
So far this preparation has not been finally established as an international reference material but it is stated by the manufacturer that when tested by the ELISA, JNIIH - 12 has a potency of 200 anti-PT ELISA units per ampoule. This unit is not an internationally defined IU.

**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.

Users who have data supporting any deterioration in the characteristics of any reference preparation are encouraged to contact NIBSC.

**9. REFERENCES**

Proposed guidelines and protocols for the quality control of acellular pertussis vaccines.  
J.G. Kreeftenberg, RIVM, PO box 1, NL-3720, Bilthoven, The Netherlands.

**10. ACKNOWLEDGEMENTS**

N/A

**11. FURTHER INFORMATION**

Further information can be obtained as follows:  
This material: [enquiries@nibsc.org](mailto: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](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](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](mailto: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: Freeze dried powder	Corrosive: No
Stable: Yes	Oxidising: No
Hygroscopic: No	Irritant: No
Flammable: No	Handling: See caution, Section 2
Other (specify): Contains material of mouse origin	
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.
<b>Action on Spillage and Method of Disposal</b>
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.

[http://www.nibsc.org/About\\_Us/Terms\\_and\\_Conditions.aspx](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**

<b>Country of origin for customs purposes*:</b> Japan * 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.
<b>Net weight:</b> 0.5 - 1.0 g
<b>Toxicity Statement:</b> Non-toxic
<b>Veterinary certificate or other statement</b> if applicable.
<b>Attached:</b> No

**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



## Statens Seruminstitut

Center for prevention and control of  
infectious diseases and congenital disorders  
WHO International Laboratory for Biological Standards

Phone: +45 32 68 34 66 (G.A. Hansen direct)  
Telefax: +45 32 68 31 50 (Laboratory direct)  
E-mail (Internet): GAHANSEN @ STANDARD.SSLDK



### Leaflet of instructions for users of CANDIDATE INTERNATIONAL REFERENCE MATERIAL OF ANTI-PERTUSSIS PT MOUSE SERUM (JN1H-12)

#### 1. THE PREPARATION

JN1H-12 is a pooled freeze-dried preparation of IgG (obtained by ammonium sulphate precipitation) from serum of mice immunized against purified pertussis toxin (PT). It was manufactured by the Biken Kanonji Institute in Japan on June 22nd, 1987 and replaces an earlier preparation, JN1H-9, which was found to be unsuitable. Ampoules have been marked: JN1H-12 (Japanese National Institute of Health).

#### 2. AMPOULE CONTENTS

JN1H-12 is freeze-dried. Each ampoule contains about 56 mg of dry material with a moisture content of about 0.5%. It was freeze-dried from a buffer solution containing phosphate buffered saline and glycin.

#### 3. UNITAGE

So far this preparation has not been finally established as international reference material and thus no international unit for anti-PT has yet been defined. It is stated by the manufacturer that, when tested by ELISA method, JN1H-12 has a potency of 200 anti-PT ELISA units per ampoule. This unit is not an internationally defined IU.

#### 4. PROPOSED USAGE

The reference material is intended to be used for the characterization of acellular pertussis vaccines from different origin. Guidelines are described as part of a WHO collaborative study<sup>1</sup>.

#### 5. STORAGE

The ampoules have to be stored at 4-8°C or lower.

#### 6. GENERAL REMARKS ABOUT INTERNATIONAL REFERENCE MATERIALS

International biological standards and international biological reference reagents provide a means of ensuring uniformity throughout the world in the designation of the potency of preparations used in the prophylaxis, therapy, or diagnosis of disease, where the potency cannot be expressed in terms of physical or chemical quantities. The International Units are units quantities of "effective constituent"<sup>2</sup>.

The reference material is the material as it exists in the ampoules; the "material" thus includes the effective constituents together with all the other constituents that may be present (moisture, carrier, buffer, salt etc., according to the form in which the standard is available).

International biological reference materials are intended for use in the calibration of the contents of "effective constituent" in national or working standard preparations and for the expression of these contents in the respective International Units.

For the routine use in the laboratory the national or working standards should be used in order to save as much as possible the international reference materials. These are only sent to individual laboratories in very limited amounts. The preparations are sent free of charges but sometimes a small charge might be claimed for air-freighting.

February 1996

#### 7. REFERENCES

1. Proposed guidelines and protocols for the quality control of acellular pertussis vaccines.  
J.G. Kreeftenberg, National Institute of Public Health and Environmental Protection, P.O.Box 1, NL-3720 BA BILTHOVEN, Netherlands.
2. N.K. Jerne & E.C. Wood, "The Validity and Meaning of the Results of Biological Assays", *Biometrics* 5, 273-299 (1949)