



Non WHO Reference Material
NIBSC Reference Reagent for Mpox DNA for NAT
NIBSC code: 25/138
Instructions for use
(Version 1.0, Dated 30/06/2025)

This material is not for in vitro diagnostic use

1. INTENDED USE

The NIBSC reference reagent is intended for performance assessment of NAT assays detecting Mpox. It comprises of a single lyophilised sample derived from clade IIb whole virus (B.1.lineage).

When tested NEAT using an in-house NAT assay (Roche MagNA Pure 24 extraction platform with Roche LightCycler 480 II amplification instrument) a Ct value of approximately 20 was observed when extracting 0.5mL (eluting 50 µl), using PAHO G2R_G primer/probe set (1). However, different extraction and amplification instruments and different PCR assays may yield different results.

The reagent is not intended to be used for assay calibration purposes or for in vitro diagnostic use.

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

No unitage is assigned to this reference reagent.

4. CONTENTS

Country of origin of biological material: United Kingdom.
The reference reagent comprises of lyophilised Clade IIb Mpox whole virus (B.1.lineage) diluted in universal buffer (10 mM Tris-HCl (pH 7.4), 0.5% human serum albumin and 1% D-(+)- Trehalose dehydrate).

The MPox virus is proven to be inactivated via acetic acid and heat treatment, and the reference reagent can therefore be considered non-infectious.

5. STORAGE

The reference reagent is shipped ambient. Upon receipt the material should be stored at -20°C or below until use.
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

This material should be reconstituted in 0.50 mL sterile distilled water. Following addition of water, the ampoule may be left at ambient temperature for approximately 10 minutes until dissolved and then mixed thoroughly, avoiding the generation of excessive foam. Where extraction instruments can not extract Tris buffer, reconstitute in PBS.

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.

No stability studies have been conducted on this material yet.

9. REFERENCES

1.<https://www.paho.org/sites/default/files/2024-08/engpahompplaboratory-guidelines27aug2024.pdf>

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



Physical and Chemical properties	
Physical appearance: Lyophilised	Corrosive: No
Stable: Yes	Oxidising: No
Hygroscopic: c: No	Irritant: No
Flammable: No	Handling: See caution, Section 2
Other (specify): N/A	
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.
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: 0.5 g
Toxicity Statement: Non-toxic
Veterinary certificate or other statement if applicable. Attached: No