



Non WHO Reference Material

NIBSC Reference Reagent for Gut Microbiome Analysis by Next-Generation Sequencing (DNA-Gut-Mix)
NIBSC code: 21/126
Instructions for use
(Version 3.0, Dated 15/02/2022)

This material is not for in vitro diagnostic use

1. INTENDED USE

This material is a mix of purified nucleic acids isolated from bacterial strains that reside in the human intestine (see Table). This a reference preparation is intended as a control reagent for Next Generation Sequencing analysis of gut microbiome samples, and more broadly to assess the quality of laboratory methods and software analysis used in these studies.

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.

3. UNITAGE

No unitage is assigned to this material.

4. CONTENTS

Country of origin of biological material: United Kingdom.
 0.25ml of freeze-dried material consisting of DNA from 20 bacterial strains (see Table) and are at a final concentration of between 6-9ng/ μ l upon reconstitution with 50 μ l.

Table

Strain number	Strain name	% content	(genome size adjusted)
DSM 22959	Akkermansia muciniphila	6.4	
DSM 17242	Alistipes finegoldii	4.5	
DSM 3319	Anaerostipes hadrus	6.1	
DSM 2079	Bacteroides thetaiotaomicron	2.7	
DSM 6597	Bacteroides uniformis	3.7	
DSM 20088	Bifidobacterium longum subsp. infantis	6.0	
DSM 20219	Bifidobacterium longum subsp. longum	6.9	
DSM 19850	Blautia wexlerae	3.8	
DSM 10702	Clostridium butyricum	3.7	
DSM 13712	Collinsella aerofaciens	7.0	
DSM 1103	Escherichia coli3.3		
DSM 3353	Eubacterium/Anaerobutyricum hallii	5.2	
DSM 17677	Faecalibacterium prausnitzii	5.5	
DSM 20077	Lactobacillus paragasseri/gasseri	9.0	
DSM 20701	Parabacteroides distasonis	3.5	
DSM 18205	Prevotella copri	4.8	
DSM 7089	Prevotella melaninogenica	5.3	
DSM 16839	Roseburia hominis	4.7	
DSM 14610	Roseburia intestinalis	3.9	
DSM 19829	Ruminococcus gauvrauui	4.1	

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 manufacturers instructions provided with the ampoule breaker.

7. USE OF MATERIAL

Upon receipt, ampoules should be stored at -20 C until use. Prior to use in assays, freeze-dried material are to be reconstituted with 50 μ l of sterile nuclease-free water. To ensure complete reconstitution of samples it is recommended that samples are gently but thoroughly mixed by pipetting material up and down at least 10 times. Samples should be reconstituted on the day of the assay.

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.

Accelerated degradation studies performed suggest that this material will be stable when stored at the recommended storage temperature of -20 C.

Users who have any data supporting any change in the characteristics of this material are encouraged to contact NIBSC.

9. REFERENCES

<https://doi.org/10.1186/s40168-020-00856-3>

10. ACKNOWLEDGEMENTS

We would like to express our thanks to SPD (NIBSC) for assistance in the determination of freeze drying conditions and for moisture and oxygen determinations of the ampouled material and the staff of CBRM for assistance with the filling procedure.

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: Freeze dried powder	Corrosive:	No		
Stable: Yes	Oxidising:	No		
Hygroscopic: No	Irritant:	Yes		
Flammable: No	Handling:	See caution, Section 2		
Other (specify):	see caution, section 1			
Toxicological properties				
Effects of inhalation:	Not established, avoid inhalation			
Effects of ingestion:	Irritating to mouth, throat and stomach, avoid ingestion			
Effects of skin absorption:	May cause skin irritation, avoid contact with skin			
Suggested First Aid				
Inhalation:	Move to fresh air and seek medical advice.			
Ingestion:	Wash out mouth with water, provided person is conscious and seek medical advice			
Contact with eyes:	Wash with copious amounts of water. Seek medical advice			
Contact with skin:	Wash thoroughly with water. Seek medical advice if symptoms occur.			
Action on Spillage and Method of Disposal				
Absorbent materials used to treat spillage should be treated as biologically hazardous 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: 0.25 - 0.5 g

Toxicity Statement: Non-toxic

Veterinary certificate or other statement if applicable.

Attached: No