

Nutrient Broth No. 2 (NCM0189) (Preston Broth Base)

Intended Use

Nutrient Broth No. 2 is used for the cultivation of fastidious bacteria, and forms the base for Preston Broth according to ISO 10272-1:2017 for the cultivation of *Campylobacter* spp. This media is not intended for use in the diagnosis of disease or other conditions in humans.

Description

This broth can also be used as the suspending medium for cooked meat granules for the cultivation of anaerobic organisms.

Typical Formulation

Enzymatic Digest of Animal Tissue	10.0 g/L
Peptone	10.0 g/L
Sodium Chloride	5.0 g/L

Final pH: 7.3 ± 0.2 at 25°C

Formula may be adjusted and/or supplemented as required to meet performance specifications.

Supplements (when preparing Preston Broth)

NCM4038	Preston Supplement
NCM4033	Campylobacter Growth Supplement

Precaution

Refer to SDS

Preparation for use as Nutrient Broth

1. Dissolve 25 grams of the medium in one liter of purified water.
2. Heat with frequent agitation to completely dissolve the medium if necessary.
3. Autoclave at 121°C for 15 minutes. Mix well.

Preparation for use as Preston Broth

4. Dissolve 25 grams of the medium in one liter of purified water.
5. Heat with frequent agitation to completely dissolve the medium if necessary.
6. Autoclave at 121°C for 15 minutes.
7. When using Nutrient Broth No. 2 to prepare Preston Broth add 2 vials of NCM4038-0.5* each reconstituted using 5mL sterile 50% ethanol, 2 vials of NCM4033-0.5*, each reconstituted using 5mL sterile deionized/RO water and 50 mL of lysed blood. Mix well.

*Larger vials may be available. Please see appropriate supplement data sheet for availability and preparation instructions.

Test Procedure

Consult appropriate references for the isolation and identification of anaerobic bacteria.

Quality Control Specifications

Dehydrated Appearance: Powder is homogeneous, free flowing, and light beige.

Prepared Appearance: Prepared Nutrient Broth medium is brilliant to clear with no to light precipitate and yellow. When supplements are added to create Preston Broth, the prepared appearance is blood red and opaque



Technical Specification Sheet



Minimum QC:

Staphylococcus aureus WDCM 00034
Escherichia coli WDCM 00013

Expected Cultural Response: Cultural response in Nutrient Broth incubated aerobically at $37 \pm 1^\circ\text{C}$ and examined for growth after $24 \pm 3^\circ\text{C}$ hours

Cultural response in Preston Broth incubated micro aerobically at $41.5 \pm 2^\circ\text{C}$ and examined for growth after $24 \pm 2^\circ\text{C}$ hours. For the cultivation of *Campylobacter* spp. refer to ISO 10272-1:2017.

Results

Turbidity indicates good growth.

Expiration

Refer to expiration date stamped on the container. The dehydrated medium should be discarded if not free flowing or appearance has changed from the original color. Expiry applies to medium in its intact container when stored as directed.

Limitations of the Procedures

Due to nutritional variation, some strains may be encountered that grow poorly or fail to grow on this medium.

Storage

Store dehydrated culture media at $2-30^\circ\text{C}$ away from direct sunlight. Once opened and recapped, place container in a low humidity environment at the same storage temperature. Protect from moisture and light by keeping container tightly closed.

References

1. British Pharmacopoeia. (1973). H.M.S.O., London. Cruikshank, R. 1972). Medical Microbiology. 11th edn. Livingstone, London.
2. ISO 10272-1:2017. Microbiology of the Food Chain – Horizontal Method for Detection and Enumeration of *Campylobacter* spp – Part 1: Detection Method.



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