

Nutrient Broth No 2 ISO 10272-1

Liquid medium for the cultivation of a wide variety of organisms, as well as a base in the preparation of special media.

TYPICAL FORMULA

	(g/l)
Enzymatic Digest of Animal Tissues	10.0
Peptone	10.0
Sodium Chloride	5.0
Final pH 7.4 ± 0.2 at 25°C	

DESCRIPTION

Nutrient Broth No 2 is a general purpose medium for the growth of non-fastidious microorganisms.

It is also used as basal medium for the selective enrichment of *Campylobacter* spp in samples with high level of background microflora, e.g. raw meats (including poultry) or raw milk, according to ISO 10272-1.

PRINCIPLE

Enzymatic digest of animal tissues and peptone provide amino acids, nitrogen, carbon, vitamins and minerals for organisms growth. Sodium chloride maintains the osmotic balance of the medium.

Supplementation with Horse Blood Lysed (ref. 83397) provides essential growth factors. Addition of antibiotics included in Preston Supplement ISO 10272-1 (ref. 81100) allows use with very contaminated samples.

PREPARATION

Suspend 25.0 g of powder in 1 liter of deionized or distilled water. Bring to boil and shake until completely dissolved. Distribute into final containers. Sterilize at 121°C for 15 minutes.

To prepare Preston Broth, suspend 25.0 g of powder in 940 milliliters of deionized or distilled water. Bring to boil and shake until completely dissolved. Sterilize at 121°C for 15 minutes. Cool up to 45-50°C. Aseptically, add 50 ml of lysed horse blood, and reconstituted content of 2 vials (10 ml) of Preston Supplement. Mix well and dispense into tubes.

TECHNIQUE

Inoculate the sample and incubate at 35 ± 2°C for 18-24 hours. **Note:** Choose the appropriate temperature and period of incubation depending on intended use and in accordance with current standards.

According to ISO 10272-1, prepare the initial suspension by adding a test portion to Preston Broth in order to obtain a 1 in 10 dilution and homogenize. Incubate at 41.5°C for 24 ± 2 h in microaerobic atmosphere.

INTERPRETATION OF RESULTS

Turbidity indicates microbial growth.

Subculture the broth onto an appropriate solid medium. For the details on the procedure to follow, refer to the instructions of the selected isolation medium.

STORAGE

The powder is very hygroscopic, store the powder at 10-30°C, in a dry environment, in its original container tightly closed and use it before the expiry date on the label or until signs of deterioration or contamination are evident. Store prepared plates at 2-8°C away from light.

WARNING AND PRECAUTIONS

The product does not contain hazardous substances in concentrations exceeding the limits set by current legislation and therefore is not classified as dangerous. It is nevertheless recommended to consult the safety data sheet for its correct use. The product must be used only by properly trained operators.

DISPOSAL OF WASTE

Disposal of waste must be carried out according to national and local regulations in force.

REFERENCES

1. ISO 10272-1:2017. Microbiology of the food chain – Horizontal method for detection and enumeration of *Campylobacter* spp – Part 1: Detection method.
2. Bolton F. J., Coates D. and Hutchinson D. N. (1984) J. Appl. Bact. 56. 151-157.
3. Bolton F. J. and Robertson L. (1982) J. Clin. Pathol. 35. 462-467.
4. British Pharmacopoeia (1980) London HMSO.
5. British Standard 541: (1934) Determining the Rideal Walker Coefficient of Disinfectants BSI London, p.9.



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PRODUCT SPECIFICATIONS

NAME

Nutrient Broth No 2 ISO 10272-1

PRESENTATION

Dehydrated medium

STORAGE

10-30°C

PACKAGE

Ref.	Content	Packaging
610393	500 g	500 g of powder in plastic bottle
620393	100 g	100 g of powder in plastic bottle

pH OF THE MEDIUM

7.4 ± 0.2

USE

Nutrient Broth No 2 is a liquid medium used for cultivating non-fastidious microorganisms. It can also be used as basic medium for the preparation of Preston Broth according to ISO 10272-1

TECHNIQUE

Refer to technical sheet of the product

APPEARANCE OF THE MEDIUM

Dehydrated medium

Appearance: free-flowing, homogeneous

Colour: yellowish

Prepared medium (unsupplemented)

Appearance: slightly opaque

Colour: amber

Preston Broth

Appearance: slightly opaque

Colour: reddish

SHELFLIFE

4 years

QUALITY CONTROL











- Control of general characteristics, label and print
- Microbiological control
Inoculum for productivity: ≤100 CFU
Inoculum for selectivity: >10³ CFU
Incubation Conditions: 35 ± 2°C for 24-48 h

Microorganism		Growth
<i>Staphylococcus aureus</i>	ATCC® 25923	Good
<i>Pseudomonas aeruginosa</i>	ATCC® 27853	Good

Incubation Conditions: 41.5 ± 1°C for 24 ± 2 h under microaerobic atmosphere

Microorganism		Specification
<i>Campylobacter jejuni</i>	WDCM 00156	>10 characteristic colonies on mCCD agar
+ <i>Escherichia coli</i>	WDCM 00012	
<i>Escherichia coli</i>	WDCM 00012	Total inhibition on TSA

TABLE OF SYMBOLS

 LOT	Batch code	 Keep away from Sunlight	 Manufacturer	 Use by	 Fragile, handle with care
 REF	Catalogue number	 Temperature limitation	 Contains sufficient for <n> tests	 Caution, consult instructions for use	 Do not reuse



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