

BOLTON BROTH

Medium for the enrichment of *Campylobacter* spp. in foods and animal feeding stuff according to the ISO 10272-1.

TYPICAL FORMULA	(g/l)
Peptone	10.0
Yeast Extract	5.0
Lactalbumin Hydrolysate	5.0
Sodium Chloride	5.0
α -Ketoglutaric Acid	1.0
Pyruvic Acid Sodium	0.5
Sodium Metabisulfite	0.5
Sodium Carbonate	0.6
Haemin	0.01
Final pH 7.4 \pm 0.2 at 25°C	

DESCRIPTION

BOLTON BROTH is a medium for the enrichment of *Campylobacter* spp. in foods and animal feeding stuff according to ISO 10272-1.

PREPARATION

Suspend 13.8 g of powder in 500 ml of distilled or deionized water. Heat and gently agitate until completely dissolved. Sterilize in autoclave at 121°C for 15 minutes. Cool to 45-50°C and aseptically add 25 ml sterile lysed defibrinated horse blood and the entire contents of one vial (5 ml) of CAMPYLOBACTER C.T.V.A. *Supplement* (Ref. 81077). Mix well and distribute into sterile tubes or flasks.

PRINCIPLE

Peptone, yeast extract and lactalbumin hydrolysate provide nitrogen, vitamins, minerals and amino acids essential for growth. Sodium chloride maintains osmotic balance while sodium metabisulfite and sodium pyruvate quenches any toxic compounds and increase the aero-tolerance of the culture. Lysed defibrinated horse blood is added to the medium for the optimal recovery of *Campylobacter* spp. The composition in antibiotics contained in CAMPYLOBACTER C.T.V.A. *Supplement* guarantees the selectivity for *Campylobacter* spp. Cefoperazone is predominantly active against Gram-negatives, Trimethoprim is active against a wide range of Gram-positive and Gram-negative bacteria, Vancomycin inhibits Gram-positives and Amphotericin B inhibits yeasts.

TECHNIQUE

1. Prepare a primary dilution of the sample taking care to respect the initial 1:10 ratio (sample to enrichment media) and homogenize.
2. Incubate this initial suspension in a microaerophilic atmosphere at 37°C for 4 to 6 hours, then at 41.5°C for 44 \pm 4 hours.
3. Using the culture obtained in the enrichment medium, inoculate with a sterile loop the surface of a selective medium.
4. Incubate the plates at 41.5°C for 44 \pm 4 h in a microaerophilic atmosphere.

INTERPRETATION OF RESULTS

Examine the plates for typical and/or suspected colonies of *Campylobacter*. The typical colonies are greyish and are flat and moist with a tendency to spread. Colonies spread less on dried agar surfaces. Other forms of colonies may occur.

STORAGE

10-30°C away from light, until the expiry date on the label or until signs of deterioration or contamination are evident.

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 the national and local regulations in force.

REFERENCES

- ISO 10272-1:2006 – Microbiology of food and animal feeding stuffs – Horizontal method for detection and enumeration of *Campylobacter* spp. - Part 1: Detection method.



LIOFILCHEM® S.r.l.

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PRODUCT SPECIFICATIONS

NAME

BOLTON BROTH

PRESENTATION

Dehydrated culture medium

STORAGE

10-30°C

PACKAGING

Ref.	Content	Packaging
610216	500 g	500 g of powder in plastic bottle
620216	100 g	100 g of powder in plastic bottle

pH OF THE MEDIUM

7.4 ± 0.2

USE

BOLTON BROTH is a medium for the enrichment of *Campylobacter* spp. in foods and animal feeding stuff according to ISO 10272-1

TECHNIQUE

Refer to technical sheet of the product

APPEARANCE OF THE MEDIUM

Dehydrated medium

Straw coloured, free-flowing powder

Prepared medium

Broth, straw coloured solution containing small black particles

SHELF LIFE









4 years

QUALITY CONTROL

- Control of general characteristics, label and print
- Microbiological control
 Inoculum for productivity: 10-100 CFU/ml
 Inoculum for selectivity: 10⁴-10⁵ CFU/ml
 Inoculum for specificity: ≤10⁴ CFU/ml
 Incubation Conditions: 18-48 h at 42 ± 1°C, in aerobiosis (microaerophilic atmosphere for *Campylobacter jejuni*)

Microorganism		Growth	Features
<i>Escherichia coli</i>	ATCC 25922	Inhibited	-
<i>Staphylococcus aureus</i>	ATCC 25923	Inhibited	-
<i>Enterococcus faecalis</i>	ATCC 29212	Inhibited	-
<i>Campylobacter jejuni</i>	ATCC 33291	Good	Grey coloured colonies

TABLE OF SYMBOLS

 Batch code	 Keep away from sunlight	 Manufacturer	 Use by
 Catalogue number	 Temperature limitation	 Contains sufficient for <n> tests	 Consult instruction for use



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