

**Specification**

Liquid culture medium used for the enrichment of *Campylobacter* from food samples according to the ISO standard 10272, after addition of supplements.

**Presentation**

10 Prepared bottles  
Bottles 250 ml  
with: 225 ± 5 ml

**Packaging Details**

1 box with 10 bottles 250 ml Non injectable cap

**Shelf Life**

12 months

**Storage**

8-14°C

**Composition**

Composition (g/l):

Meat pepton.....	10.0
Lactalbumin hydrolysate.....	5.00
Yeast extract.....	5.00
Sodium chloride.....	5.00
Alfa-cetoglutarate.....	1.00
Sodium carbonate.....	0.60
Sodium bisulphite.....	0.50
Sodium pyruvate.....	0.50
Haemin.....	0.01

Note: To complete the culture medium added 5% of Lysed horse blood and *Campylobacter* Bolton Selective Supplement.

## Description /Technique

### Description:

Bolton Broth Base is intended for the enrichment of *Campylobacter* from food samples. Food processing and preservation injure *Campylobacter* cells and resuscitation steps by a double incubation in Bolton Broth encourages them to multiply and grow. The meat peptone and lactalbumin hydrolysate supply the carbon and nitrogen for growth. Sodium chloride provides osmotic balance and the sodium carbonate neutralizes the acidity generated by the microbial growth. Yeast extract and ketoglutaric acid act as growth factors. Inclusion of sodium metabisulfite, sodium pyruvate and haemin neutralises toxic compounds that may form in the culture medium due to the action of oxygen action and avoid the need for a microaerobic atmosphere. Horse Lysed blood is necessary to neutralize trimethoprim antagonists present in the medium.

The selectivity of the enrichment step is optimized with the Selective Supplement: Vancomycin is active against Gram positive microorganisms. Cephoperazone is predominantly active against Gram negative bacteria. Trimethoprim acts against a wide variety of Gram positive and Gram negative cells and cycloheximide or amphotericin B are efficient fungicides.

### Technique recommended use:

Introduce a quantity (mass or volume) into nine times its volume of Bolton Selective Enrichment Broth so as to obtain a test sample/medium ratio of 1:10 (w/v or v/v) and homogenize.

Bolton Selective Enrichment Broth does not require incubation in a microaerobic environment, but must be used in screw topped containers which are filled leaving a headspace of less than 20 mm, and have tightly closing caps.

Incubate the initial suspension at 37°C for 4-6 hours, then at 41,5°C for 44 ± 4 hours.

For the isolation and identification techniques, please, refer to ISO or BAM (Bacteriological Analytical Manual) methods.

Note: To complete the culture medium added 5% of Lysed horse blood and *Campylobacter* Bolton Selective Supplement.

**Quality control****Physical/Chemical control**

Color : Brown

pH: 7.4 ± 0.2 at 25°C

**Microbiological control**

Prepare Tubes - Inoculate with 100±20 CFU for Growth Promotion or 10<sup>4</sup>-10<sup>6</sup> CFU for Selectivity  
Microaerophilia. 37°C ± 1 during 5h±1; After 41,5°C±1 during ± 44h ±4

Subculture after incubation onto appropriate media

**Microorganism***Campylobacter jejuni* ATCC® 29428, WDCM 00156*Escherichia coli* ATCC® 8739, WDCM 00012*Proteus mirabilis* ATCC® 29906, WDCM 00023**Growth**

Good to excellent - Typical colonial appearance

Inhibited

Inhibited

Microbiological control accor. to ISO 11133:2014

**Sterility Control**

Incubation 48 hours at 30-35°C and 48 hours at 20-25°C: NO GROWTH

Check at 7 days after incubation in same conditions

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