

Bolton Selective Enrichment Broth (Base)

Medium for the selective enrichment of *Campylobacter* from foods.

Mode of Action

Bolton Selective Enrichment Broth contains nutrients to aid resuscitation of sublethally damaged cells of *Campylobacter*. By this microaerophilic incubation is not needed. Addition of Bolton Broth Selective Supplement inhibits the accompanying grampositive and gramnegative bacteria as well as yeasts and moulds.

Typical Composition (g/litre)

Peptone from Meat 10,0; Lactalbumin hydrolysate 5,0; Yeast Extract 5,0; Sodium chloride 5,0; α -ketoglutaric acid 1,0; Sodium pyruvate 0,5; Sodium metabisulphite 0,5; Sodium carbonate 0,6; Haemin 0,01

Preparation

Dissolve 13,8 g in 500 ml of demin water.

Autoclave (15 min. at 121°C).

Cool to 45 - 50°C. Aseptically add 25 ml lysed horse blood and the content of 1 vial of Bolton Broth Selective Supplement. Mix well and distribute the broth into sterile screw top containers. After the addition of the sample the space between screw top and broth should be approx. 2cm.

pH: 7.4 \pm 0.2 at 25 °C.

The ready-to-use broth in the container is dark red to black.

Experimental Procedure and Evaluation

Mix 25 g of food sample in 225 ml Bolton Selective Enrichment Broth and incubate for 4 hours at 37 °C. Afterwards continue incubation for 14-44 hours at 41,5 °C.

Subculture after 18 resp. 48 hours on *Campylobacter* Blood Free Selective Agar (modified CCDA, Merck Cat. No. 1.00070.0500).

Direct screening for *Campylobacter jejuni* and coli using Singlepath® *Campylobacter*, Merck Cat. No. 1.04143 is possible.

Literature

HUNT, J.M.: *Campylobacter*, F.D.A. **Bacteriological Analytical Manual, 8th Edition (Revision A) 7.01-7.27**, AOAC, Arlington Va. (1998)

BOLTON, F.J.: Personal communication, (1995)

Ordering Information

Product	Merck Cat. No.	Pack size
Bolton Selective Enrichment Broth (Base)	1.00068.0500	500 g
Bolton Broth Selective Supplement	1.00079.0001	1 x 16 vials
<i>Campylobacter</i> Blood Free Selective Agar (Base)	1.00070.0500	500 g
Singlepath® <i>Campylobacter</i>	1.04143.0001	20 tests

Quality control

Test strains	Growth after 48 hours
<i>Campylobacter jejuni</i> ATCC 33291	> 10 ⁶ CFU/ml
<i>Campylobacter jejuni</i> ATCC 29428	> 10 ⁶ CFU/ml
<i>Campylobacter coli</i> ATCC 33559	> 10 ⁶ CFU/ml
<i>E. coli</i> ATCC 25922	-
<i>Saccharomyces cerevisiae</i> ATCC 9763	-