

Bolton Broth



Medium used for the isolation and cultivation of *Campylobacter* spp.

*Equally use with MFDS (MB-B2129K).

• CONTENTS (Liter)

Meat Peptone	10.0 g
Lactalbumin Hydrolysate	5.0 g
Yeast Extract	5.0 g
Sodium Chloride	5.0 g
Hemin	0.01 g
Sodium Pyruvate	0.5 g
α -Ketoglutaric Acid	1.0 g
Sodium Metabisulfite	0.5 g
Sodium Carbonate	0.6 g
Final pH = 7.4 ± 0.2 at 25°C	

• PROCEDURE

Suspend 27.61 G of powder in 1 L of distilled or deionized water. Heat to boiling until completely dissolved. Sterilize by autoclave at 121°C for 15 minutes. Cool to 45 - 50°C in water bath. Aseptically add 50 mL of Horse Blood Lysed (MB-H1885) and 2 vials of *Campylobacter* Selective supplement, Bolton (MB-C2505). Mix well. Pour into tubes.

Campylobacter Selective supplement, Bolton**

1 vial contents (each vial is sufficient for 500 mL of medium)

Vancomycin	0.01 g
Cefoperazone	0.01 g
Trimethoprim	0.01 g
Cycloheximide	0.025 g

**Equally use with MB-C2505K

• INTERPRETATION

Bolton Broth is a medium used for the isolation and cultivation of *Campylobacter* spp. Meat peptone, lactalbumin hydrolysate, and yeast extract provide nitrogen, carbon, amino acids, and vitamins. Sodium chloride maintains the osmotic balance. Hemin and horse blood lysed provide essential growth factors. Sodium pyruvate, sodium metabisulfite, and sodium carbonate increase the aerotolerance of *Campylobacter* spp. by acting as oxygen scavengers. α -Ketoglutaric acid is added to stimulate growth. The addition of vancomycin, cefoperazone, trimethoprim and cycloheximide are selective agents to inhibit gram-positive and gram-negative bacteria.

• TECHNIC

Inoculate the specimen using a sterile needle to the medium. Incubate at 35 - 37°C for 4 - 5 hours under microaerobic condition. And then, incubate at $42 \pm 1^\circ\text{C}$ for 24 - 48 hours under microaerobic condition. Refer appropriate references for recommended test procedure.

• QUALITY CONTROL FOR USE

Dehydrated medium

Appearance: free-flowing, homogeneous

Color: light yellow to brownish yellow

Prepared medium

Appearance: slightly opalescent

Color: yellowish-brown

Incubation conditions: first, 35 - 37°C / 4 - 5 hours / microaerobic condition

second, $42 \pm 1^\circ\text{C}$ / 24 - 48 hours /microaerobic condition

Microorganism	ATCC	Inoculum CFU	Growth
<i>Campylobacter jejuni</i>	33291	50-100	good
<i>Escherichia coli</i>	25922	$\geq 10^3$	inhibited

• STORE

The powder is very hygroscopic. Store the powder at room temperature, in a dry environment, in its original container tightly closed and use it before the expiry date on the label. Store prepared medium at 2 - 8°C.

• REFERENCES

1. FDA Bacteriological Analytical Manual, 8th edition (1988).
2. Refer to the MFDS.

• PACKAGE

Cat. No : MB-B2129 Bolton Broth	500 G
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• MICROBIAL CULTURE IMAGES



Incubation conditions : first, 35 - 37 °C / 4 - 5 hours
second, 42 ± 1 °C / 24 - 48 hours