

# Preston Broth

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

\*Equally use with MFDS (MB-P0856K).



## • CONTENTS (Liter)

Beef Extract	10.0 g
Casein Peptone	10.0 g
Sodium Chloride	5.0 g
Final pH = 7.5 ± 0.2 at 25°C	

## • PROCEDURE

Suspend 25.0 G of powder in 950 mL 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 2 vials of *Campylobacter* Preston supplement (MB-C1804), *Campylobacter* Growth supplement (MB-C1850) and 50 mL of Horse Blood Lysed (MB-H1885). Mix well. Pour into tubes.

### **Campylobacter Preston supplement\*\***

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

Polymyxin B	2,500 IU
Rifampicin	0.005 g
Trimethoprim	0.005 g
Cycloheximide	0.05 g

\*\*Equally use with MFDS (MB-C1804K).

### **Campylobacter Growth supplement**

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

Sodium Pyruvate	0.125 g
Sodium Metabisulfite	0.125 g
Ferrous Sulfate	0.125 g

## • INTERPRETATION

Preston Broth is a medium used for the isolation and cultivation of *Campylobacter* spp. from clinical samples. Beef extract and casein peptone provide nitrogen, amino acids, vitamins and minerals necessary to support bacterial growth. Sodium chloride maintains the osmotic balance. Sodium pyruvate, sodium metabisulfite and ferrous sulfate are used for the enumeration of *Campylobacter* spp. Polymyxin B, rifampicin and trimethoprim inhibit most Gram-negative organisms and many Gram-positive organisms. Cycloheximide suppresses fungi.

## • TECHNIC

Inoculate the specimen using a sterile needle to the medium. Incubate at 42 ± 2°C for 48 - 72 hours under microaerobic condition. Refer appropriate references for recommended test procedure.

## • QUALITY CONTROL FOR USE

### Dehydrated medium

Appearance: free-flowing, homogeneous

Color: beige

### Prepared medium

Appearance: opaque

Color: reddish-dark brown

Incubation conditions: 42 ± 2°C / 48 - 72 hours under microaerobic condition

Microorganism	ATCC	Inoculum CFU	Growth
<i>Campylobacter jejuni</i>	33291	50-100	good
<i>Escherichia coli</i>	25922	≥10 <sup>3</sup>	inhibited
<i>Staphylococcus aureus</i>	25923	≥10 <sup>3</sup>	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.

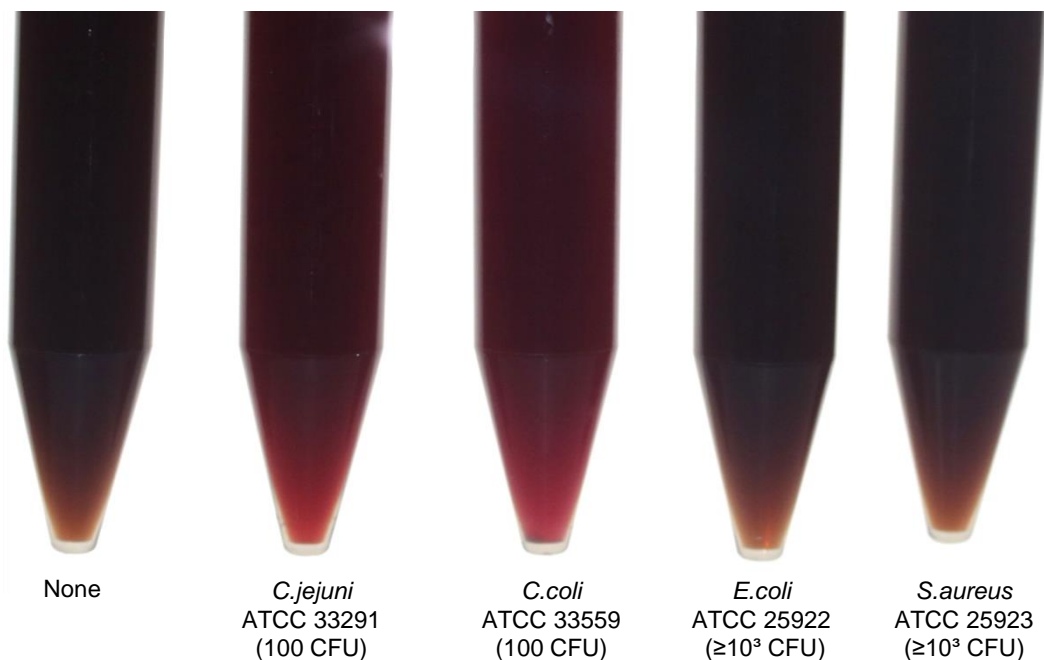
## • REFERENCES

1. Bolton, F. J., and L. Robertson. 1982. J. Clin. Microbiol. 35:462-467.
2. Bolton, F. J., D. Coates, P. M. Hinchliffe, and L. Robertson. 1983. J. Clin. Pathol. 36:78-83.
3. Murray, P. R., E. J. Baron, M. A. Pfaller, F. C. Tenover, and R. H. Tenover (eds.). 1995. Manual of clinical microbiology, 6<sup>th</sup> ed. American Society for Microbiology, Washington, D.C.

## • PACKAGE

Cat. No : MB-P0856 Preston Broth	500 G
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## • MICROBIAL CULTURE IMAGES



Incubation conditions : 42 ± 2°C / 48 - 72 hours under microaerobic condition