



Arcobacter Broth Base

M1637

Arcobacter Broth Base is used as an enrichment broth for *Arcobacter* species

Composition**

Ingredients	Gms / Litre
Peptone	18.000
Yeast extract	1.000
Sodium chloride	5.000
Final pH (at 25°C)	7.2±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 12 grams in 500 ml distilled water. Heat if necessary to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Allow to cool to 50°C and aseptically add rehydrated contents of one vial of CCDA Selective Supplement (FD135). Mix well and dispense into sterile tubes.

Principle And Interpretation

Arcobacter are aerotolerant, *Campylobacter* -like organisms frequently isolated from cattle and pigs suffering from abortion and enteritis (1). Only two of the four *Arcobacter* species have been associated with human infections. *A. butzleri* has been isolated from patients with bacteremia, endocarditis, peritonitis and diarrhoea.(2,3). *A. cryaerophilus* group 1B has been isolated from patients with bacteremia and diarrhoea (4,5), although it is a much less common human isolate than *A. butzleri* (6). Arcobacter Broth Base with added supplements is used as a selective enrichment broth for *Arcobacter* species. The medium is made selective for *A. butzleri* by the addition of CCDA Selective Supplement (FD135).

Peptones and yeast extract provide essential growth nutrients for *Arcobacter* species. Sodium chloride maintains osmotic equilibrium in addition to providing essential ions for growth. Cefoperazone, amphotericin B and teicoplanin are added to suppress the growth of *Campylobacter* species. *Campylobacter* species are further suppressed due to the incubation conditions and also due to lack of charcoal or blood in the medium

Quality Control

Appearance

Cream to yellow homogeneous free flowing powder

Colour and Clarity of prepared medium

Light amber coloured clear solution in tubes.

Reaction

Reaction of 2.4% w/v aqueous solution at 25°C. pH : 7.2±0.2

pH

7.00-7.40

Cultural Response

M1637: Cultural characteristics observed with added CCDA Selective Supplement (FD135), after an incubation at 35-37°C for 18-48 hours.

Organism	Inoculum (CFU)	Growth
Cultural Response <i>Escherichia coli</i> ATCC 25922	$\geq 10^3$	inhibited
<i>Arcobacter butzleri</i> ATCC 12481	50-100	good-luxuriant

Storage and Shelf Life

Store below 30°C in tightly closed container and the prepared medium at 2 - 8°C. Use before expiry date on label.

Reference

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3. Taylor D. N., et al, 1987, Antimicrob. Agents Chemother.31: 438-442
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5. Vandamme P., Vancanneyt M., Pot B., Mels L., Hoste B., Dewettinck D., Vlaes L., Van den Borre C., Higgins R., Hommer J.,1992, Int. J. Syst. Bacteriol., 42:344-356.
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Revision : 2 / 2015

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