



Christopher Semisolid Brucella Medium Base

M943

Christopher Semisolid Brucella Medium Base is used for the selective enrichment of *Campylobacter* species from food.

Composition**

Ingredients	Gms / Litre
Casein enzymic hydrolysate	10.000
Peptic digest of animal tissue	10.000
Dextrose	1.000
Yeast extract	2.000
Sodium chloride	5.000
Sodium bisulphite	0.100
Sodium pyruvate	0.500
Agar	1.500

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 15.05 grams in 500 ml distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 50°C and aseptically add rehydrated contents of 1 vial of Campylobacter Supplement-I, Blaser-Wang (FD006). Mix well and dispense in tubes as desired. Allow the tubes to cool in an upright position.

Principle And Interpretation

Infection with a *Campylobacter* species is one of the most common causes of human bacterial gastroenteritis (1). They are generally ingested via contaminated food, often undercooked or poorly handled poultry, although contact with contaminated drinking water, livestock, or household pets can also cause disease (2). Christopher described this medium as a selective medium for cultivation of *Campylobacter* species (3). This medium is also recommended by APHA (4) for enrichment of *Campylobacter* species from food using MPN technique.

Peptic digest of animal tissue, yeast extract and casein enzymic hydrolysate provide growth nutrients. Dextrose is utilized as an energy source. The antibiotic supplement makes the medium selective for the isolation of *Campylobacter* species. Sodium bisulphite is a reducing agent and sodium chloride maintains osmotic equilibrium of the medium. Sodium pyruvate serves to enhance the growth of *Campylobacter* species.

Quality Control

Appearance

Cream to yellow homogeneous free flowing powder

Gelling

Semisolid, comparable with 0.15% Agar gel.

Colour and Clarity of prepared medium

Yellow coloured, clear to slightly opalescent gel forms in tubes

Cultural Response

M943: Cultural characteristics observed with added Campylobacter Supplement-I, Blaser-Wang(FD006) in microaerobic atmosphere (5% O₂ +10% CO₂ + 85% N₂), after an incubation after at 42°C for 48 hours.

Organism

Growth

Campylobacter coli ATCC 33559 good-luxuriant

Campylobacter jejuni ATCC 29428 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 the label.

Reference

1. Moore J. E. et al, 2005, "Campylobacter", Vet Res 36 (3): 351-82.
2. Saenz Y., Zarazaga M., Lantero M., Gastanares M. J., Baquero F., Torres C., 2000, Antimicrob. Agents Chemother., 44 (2): 267-71.
3. Christopher F. M., Smith G. C., and Vanderzant C., 1982, J. Food Prot. 45: 260-262.
4. Speck M. L., (Ed), 1984, Compendium of Methods for the Microbiological Examination of Foods, 2nd Ed., APHA, Washington D.C.

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