Modified Lauryl Sulphate Tryptose Broth Base

M1643

Modified Lauryl Sulphate Tryptose Broth Base is recommended as a pre-enrichment medium for *Cronobacter sakazakii* from milk and milk products.

Composition**

Ingredients	Gms / Litre
Enzymatic digest of animal and plant tissue	20.000
Lactose	5.000
Sodium chloride	34.000
Dipotassium hydrogen phosphate	2.750
Potassium dihydrogen phosphate	2.750
Sodium lauryl sulphate	0.100
Final pH (at 25°C)	6.8±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 64.6 grams in 1000 ml distilled water. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 50°C and aseptically add rehydrated contents of vial of Vancomycin Supplement (FD233). Mix well and distribute in tubes.

Principle And Interpretation

Enterobacter species are widely distributed in nature occurring in fresh water, soil sewage, plants, vegetables, animal and human faeces. **Cronobacter sakazakii* , a gram-negative rod, closely associated with neonatal meningitis and sepsis (1). Modified Lauryl Sulphate Tryptose Broth is recommended for pre-enrichment of **Cronobacter sakazakii* (2) and is in accordance with ISO specifications.

Enzymatic digest of animal and plant tissue provides the essential growth nutrients along with nitrogenous and carbonaceous compound. Sodium chloride maintains the osmotic balance. Potassium phosphates provide buffering system. Sodium lauryl sulphate inhibits organisms other than coliforms.

1 gram of the sample is inoculated in 9 ml of Buffered Peptone Water (M1494I) and incubated at 37°C for 18 hours. After incubation, inoculate 0.1ml in Modified Lauryl Sulphate Tryptose Broth (M1643) for selective enrichment of **C.sakazakii* . After incubating the medium at 44°C for 24 hours, a loopful is streaked on HiCrome Enterobacter Sakazakii Agar, Modified (M1641). Incubate the plates at 44°C for 24 hours and observe for typical colonies of **C.sakazakii* . These colonies should be further confirmed biochemically (3).

Quality Control

Appearance
Cream to yellow homogeneous free flowing powder

Colour and Clarity of prepared medium
Light yellow coloured clear solution without any precipitate

Reaction
Reaction of 6.46% w/v aqueous solution at 25°C. pH : 6.8±0.2

pH
6.60-7.00

Cultural Response
M1643: Cultural characteristics observed with added Vancomycin Supplement (FD233) after an incubation at 44°C for 18-24 hours.

Organism	Inoculum (CFU)	Growth

Cultural Response

**Cronobacter sakazakii ATCC 12868*	50-100	good-luxuriant
Enterobacter aerogenes ATCC 13048	50-100	good-luxuriant
Escherichia coli ATCC 25922	50-100	Good - luxuriant
Enterococcus faecalis ATCC 29212	>=10^3	Inhibited
Staphylococcus aureus ATCC 25923	>=10^3	Inhibited

*Key : *- Formerly known as Enterobacter sakazakii*

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. Muytjens H. L., Zanen H. C., Sonderkamp H. J. et al., 1983, J. Clin.Microbiol., 18 : 115-120
2. International Organization for Standardization Draft ISO/TS 22964: 2006 (E).
3. Murray P. R., Baron J. H., Pfaller M. A., Jorgensen J. H. and Yolken R. H., (Ed.), 2003, Manual of Clinical Microbiology, 8th Ed., American Society for Microbiology, Washington, D.C.

Revision : 1 / 2011