Plate Count Agar with BCP

M1351

Plate Count Agar w/ BCP is used for enumeration of Lactobacilli in cultured milk, yoghurt and sour creams.

Composition**

Ingredients	Gms / Litre
Peptic digest of animal tissue	5.000
Yeast extract	2.500
Dextrose	1.000
Polysorbate 80 (Tween 80)	1.000
L-Cysteine	0.100
Bromo cresol purple	0.040
Agar	15.000
Final pH (at 25°C)	6.8±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 24.64 grams in 1000 ml. distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Mix well and pour into sterile Petri plates.

Principle And Interpretation

Plate Count Agar with BCP is a slight modification of the medium recommended by APHA (1) for enumeration of Lactobacilli in cultured milk, yoghurt and sour creams. Lactobacilli grow on this medium and form colonies with yellowish peripheries in the depth and on the surface of the medium. Addition of polysorbate 80 and L- cysteine enhanced the growth of lactobacilli on this medium. *Lactobacillus bulgaricus* invariably forms yellowish colonies its detection and determination is easy.

Peptic digest of animal tissue supply nitrogenous and carbonaceous compounds. Yeast extract provides vitamin B complex and dextrose is the fermentable carbohydrate and energy source. Bromocresol purple is a pH indicator. Plate Count Agar can be incubated at 30°C for upto 72 hours for detection of mesophillic organisms. Polysorbate 80 supplies fatty acids required for the metabolism of lactobacilli.

Quality Control

Appearance
Light yellow to light green homogeneous free flowing powder

Gelling
Firm, comparable with 1.5% Agar gel

Colour and Clarity of prepared medium
Purple coloured clear to slightly opalescent gel forms in Petri plates

Reaction
Reaction of 2.46% w/v aqueous solution at 25°C. 6.8±0.2 pH : 6.8±0.2

pH
6.60-7.00

Cultural Response
M1351: Cultural characteristics observed after an incubation at 35-37°C for 18-48 hours.

Organism	Inoculum (CFU)	Growth	Recovery
Cultural Response			
Lactobacillus acidophilus ATCC 4356	50-100	luxuriant	>=70%
Lactobacillus lactis ATCC 19435	50-100	luxuriant	>=70%

Lactobacillus bulgaricus ATCC 11842	50-100	luxuriant	>=70%
Streptococcus thermophilus ATCC 14485	50-100	luxuriant	>=70%

Storage and Shelf Life

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

Reference

1. Downes F. P. and Ito K., (Eds.), 2001, Compendium of Methods for the Microbiological Examination of Foods, 4th Ed., APHA, Washington, D.C.

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