High Plate Count Agar

M1097

High Plate Count Agar is used for obtaining higher colony counts by spread plate or pour plate or membrane filter technique.

Composition**

Ingredients	Gms / Litre
Peptic digest of animal tissue	3.000
Casein soluble	0.500
Dipotassium phosphate	0.200
Magnesium sulphate	0.050
Iron (III) Chloride	0.001
Agar	15.000
Final pH (at 25°C)	7.2±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 18.75 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

The heterotrophic plate count (HPC), formerly known as the standard plate count is a procedure for estimating the numbers of live heterotrophic bacteria in water and measuring the changes during water treatment and distribution or in swimming pools. Different methods namely pour plate method, spread plate method and membrane filter method can be followed to obtain heterotrophic plate count. High Plate Count Agar is recommended by APHA for determining heterotrophic plate count (1). This low nutrient medium is likely to produce higher colony counts than high nutrient media.

Peptic digest of animal tissue and casein provide the necessary nitrogenous compounds for the growth of heterotrophic microorganisms. Metallic salts and dipotassium phosphate together with casein and peptic digest of animal tissue promotes the growth of higher number of microorganisms. Refer appropriate references for standard procedures (1).

Quality Control

Appearance
Cream to yellow homogeneous free flowing powder

Gelling
Firm, comparable with 1.5% Agar gel

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

Reaction
Reaction of 1.88% w/v aqueous solution at 25°C. pH : 7.2±0.2

pH
7.00-7.40

Cultural Response
M1097: Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.

Organism	Inoculum (CFU)	Growth	Recovery
Bacillus subtilis ATCC 6633	50-100	luxuriant	>=70%
Enterococcus faecalis ATCC 29212	50-100	luxuriant	>=70%

Escherichia coli ATCC 25922	50-100	luxuriant	>=70%
Lactobacillus casei ATCC 9595	50-100	luxuriant	>=70%
Staphylococcus aureus ATCC 25923	50-100	luxuriant	>=70%
Streptococcus pyogenes ATCC 19615	50-100	luxuriant	>=70%

Storage and Shelf Life

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

Reference

1.Eaton A. D., Clesceri L. S., Rice E. W. and Greenberg A. W., (Eds.),2005, Standard Methods for the Examination of Water and Wastewater, 21st Ed., APHA, Washington, D.C

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