PRODUCT INFORMATION

Product Type: Bottle product (200/400ml)

Cat No. BP032 - STANDARD METHODS AGAR

Intended Use:

Recommended for the determination of plate counts of microorganisms in food, water and wastewater.

Principles and uses:

Plate Count Agar is formulated as described by Buchbinder et al (1) which is recommended by APHA (2,3,4) and FDA (5). Tryptone provides nitrogenous and carbonaceous compounds, long chain amino acids, and other essential nutrients. Yeast extract supplies Vitamin B complex. APHA recommends the use of pour plate technique. The samples are diluted and appropriate dilutions are added in Petri plates. Sterile molten agar is added to these plates and plates are rotated gently to ensure uniform mixing of the sample with agar. The poured plate count method is preferred to the surface inoculation method, since it gives higher results. Plate Count Agar is also suitable for enumerating bacterial count of sterile rooms.

Type of specimen

Food and dairy samples; Water samples.

Limitations:

1. Individual organisms differ in their growth requirement and may show variable growth patterns on the medium.
2. Each lot of the medium has been tested for the organisms specified on the COA. It is recommended to users to validate the medium for any specific microorganism other than mentioned in the COA based on the user's unique requirement.

Reference

1. Buchbinder L., Baris Y., Aldd E., Reynolds E., Dilon E., Pessin V., Pincas L. and Strauss A., 1951, Publ. Hlth. Rep., 66:327.
2. Lipps WC, Braun-Howland EB, Baxter TE,eds. Standard methods for the Examination of Water and Wastewater, 24th ed. Washington DC: APHA Press; 2023.
3. Salfinger Y., and Tortorello M.L., 2015, Compendium of Methods for the Microbiological Examination of Foods, 5th Ed., American Public Health Association, Washington, D.C.
4. Wehr H. M. and Frank J. H., 2004, Standard Methods for the Microbiological Examination of Dairy Products, 17th Ed., APHA Inc., Washington, D.C.
5. FDA Bacteriological Analytical Manual, 2005, 18th Ed., AOAC, Washington, DC.

Composition:

Tryptone 5.0 g/L
Yeast extract 2.50 g/L
Dextrose (Glucose) 1.0 g/L
Agar 15.0 g/L

Storage: 15°-25°C
Appearance: Light Amber, Slightly Opalescent
pH Range: 6.8 - 7.2
Exp. Date: Printed on label and on the item.
Required materials not supplied: Laboratory equipment as required.

Warning and Precautions:

Warning and Precautions - For professional use only. Follow good microbiological lab practices while handling specimens and culture. Do not use Bottles if they show evidence of microbial contamination, discoloration, drying, cracking, or other signs of deterioration. Avoid freezing and overheating. The Bottles may be used / inoculated up to the expiration date and incubated for the recommended incubation times. After use and prior to discarding, specimen containers and all contaminated material, including the used culture media and contaminated culture containers, must be sterilized or incinerated by validated procedures. Since the nutritional requirements of organisms vary, some strains may be encountered that fail to grow or grow poorly on this medium.

Waste Disposal

After interpretation all items should be destroyed by standard incineration methods.

Performance Testing Results:

GPT: 10-100 cfu (pour plate method*).

TEST	ATCC	Incubation Temp. (℃)	Incubation Cond.	Reaction 1
Staphylococcus aureus	6538	29-31 ℃	Aerobic, 72 hours	Growth
Bacillus subtilis	6633	29-31 ℃	Aerobic, 72 hours	Growth
Escherichia coli	8739	29-31 ℃	Aerobic, 72 hours	Growth
Pseudomonas paraeruginosa	9027	29-31 ℃	Aerobic, 72 hours	Growth
Candida albicans	10231	29-31 ℃	Aerobic, 72 hours	Growth
Aspergillus brasiliensis	16404	29-31 ℃	Aerobic, 72 hours	Growth

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Implementation Date: 27/10/25
Version Number: 01