Technical Information

M-BCG Yeast and Mould Agar

Product Code: DM 2504

Application: - M-BCG Yeast and Mould Agar is recommended for the detection of fungi in routine analysis of beverages using membrane filter technique.

Composition**

Ingredients	Gms / Litre
Yeast extract	9.000
Dextrose	50.000
Biopeptone	10.000
Magnesium sulphate	2.100
Potassium phosphate	2.000
Diastase	0.050
Thiamine hydrochloride	0.050
Bromocresol green	0.026
Agar	15.000
Final pH (at 25°C)	4.6±0.2

**Formula adjusted, standardized to suit performance

Principle & Interpretation

M-BCG (Bromocresol Green) Yeast and Mould Agar is recommended for the detection of fungi in routine analysis of beverages using membrane filter technique (1).

The microbiology of beverages will vary greatly depending upon the method of processing and the means of preservation. High microbial populations often indicate poor quality in raw material, unsanitary equipments or opportunity for growth in the food at some stage in the process. Heat processed beverages will be free of aciduric microorganism but may yield low numbers of viable spore forming bacteria when cultured on non-selective media. Bacteria cannot grow in the high acid environment and therefore direct microscopic count for yeast, bacteria or moulds may provide a clue to the conditions of sanitization during processing. Heat resistant spores may be present in low numbers. Because of their slow growth and poor competitive ability, yeast and moulds often manifest themselves on or in foods in which the environment is less favourable for bacterial growth.

This medium is used for enrichment of yeasts and moulds from populations containing bacteria.

The medium is highly nutritious for the growth of yeasts and moulds. Bio peptone and yeast extract provide nitrogenous compounds and vitamin B complex. Thiamine is also a B vitamin in the medium. Dextrose acts as the energy source. Diastase is a mixture of amylolytic enzymes. Bromocresol green acts as pH indicator, which is green at acidic pH (pH 4.0) while blue at pH 5.6. Potassium phosphate helps in maintaining buffering action in the medium. The low pH prevents the bacterial growth. The membrane filter is directly placed on the agar surface of M-BCG Yeast and Mould Agar and incubated at 30-35°C for 48 hours.

Methodology

Suspend 8.82 grams of dehydrated powder media in 100 ml distilled water. Mix thoroughly & heat to boil to dissolve the medium completely. Dispense and sterilize by autoclaving at 12 - 15 lbs pressure (118 - 121°C) for 10 minutes.

Quality Control

Appearance
Cream to light green homogeneous free flowing powder

Gelling
Firm, comparable with 1.5% Agar gel

Colour and Clarity
Green coloured opalescent gel forms in Petri plates

Reaction
Reaction of 8.82% w/v aqueous solution at 25°C. pH : 4.6±0.2

pH Range
4.40-4.80

Cultural Response
DM 2504: Cultural characteristics observed after an incubation at 25 - 30°C for 48 - 72 hours.

Organism	Inoculum (CFU)	Growth
**Aspergillus brasiliensis ATCC 16404*	50-100	good-luxuriant
Candida albicans ATCC 10231	50-100	good-luxuriant
Saccharomyces cerevisiae ATCC 9763	50-100	good-luxuriant

Key: * *- Formerly known as Aspergillus niger*

Storage and Shelf Life

Dried Media: Store below 30°C in tightly closed container and use freshly prepared medium. Use before expiry date on the label.
Prepared Media: 2-8° in sealable plastic bags for 2-5 days.

Further Reading

1. MacFaddin J.F., 1985, Media for Isolation - Cultivation - Identification - Maintenance of Medical Bacteria, Vol. I, Williams and Wilkins, Baltimore.

Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
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