



## M-BCG Yeast and Mould Agar

M1504

M-BCG Yeast and Mould Agar is used 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 parameters

### Directions

Suspend 8.82 grams in 100 ml distilled water. Heat to boiling to dissolve the medium completely. Dispense and sterilize by autoclaving at 12 - 15 lbs pressure (118 - 121°C) for 10 minutes.

### Principle And Interpretation

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.

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

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. Biopeptone 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 is the 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 inhibits 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.

### Quality Control

#### Appearance

Cream to light green homogeneous free flowing powder

#### Gelling

Firm, comparable with 1.5% Agar gel

#### Colour and Clarity of prepared medium

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**

4.40-4.80

**Cultural Response**

M1504: Cultural characteristics observed after an incubation at 25 - 30°C for 48 - 72 hours.

<b>Organism</b>	<b>Inoculum (CFU)</b>	<b>Growth</b>
<b>Cultural Response</b>		
* <i>Aspergillus brasiliensis</i> ATCC 16404	50-100	good-luxuriant
<i>Candida albicans</i> ATCC 10231	50-100	good-luxuriant
<i>Saccharomyces cerevisiae</i> ATCC 9763	50-100	good-luxuriant

Key : \* - Formerly known as *Aspergillus niger*

**Storage and Shelf Life**

Store below 30°C in tightly closed container and use freshly prepared medium. Use before expiry date on the label.

**Reference**

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

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