

M-Green Yeast and Mold Agar

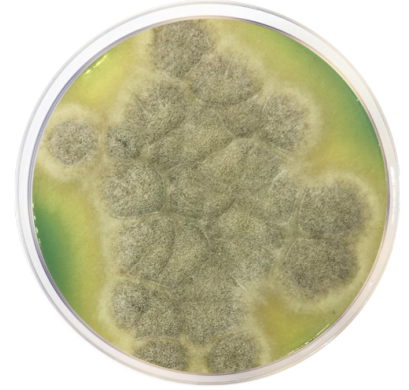
Cat. 2108

For routine beverage analysis test

Practical information

Applications	Categories
Detection	Yeasts and molds

Industry: Alcoholic beverages



Principles and uses

M-Green Agar for Fungi and Yeasts is a medium used for the detection of yeast and fungi in beverages. This formulation is rich in nutrients which allows for excellent fungal growth.

Casein and gelatin peptone provides nitrogen, vitamins, minerals and amino acids essential for growth. Yeast extract is a source of vitamins, particularly of the B-group. Dextrose is the fermentable carbohydrate providing carbon and energy. Bacteriological agar is the solidifying agent. Potassium phosphate is a buffering agent. Magnesium sulfate, thiamine, and diastase (a mixture containing amylolytic (starch) enzymes) provide essential ions, minerals, and nutrients. Bromocresol Green is the pH indicator, facilitating visualization and counting of fungal colonies. The colonies are green due to diffusion of bromocresol green into the colonies. The end products of the microbial growth diffuse into the medium, reducing the pH and turn the indicator to yellow. Bacterial growth is inhibited by an acid pH.

Yeast are large green opaque colonies. Mould appear green and filamentous. Bacteria able to grow at this pH form smaller clear to white colonies.

Formula in g/L

Dextrose	50	Bacteriological agar	15
Bromocresol green	0,026	Casein peptone	5
Gelatin peptone	5	Magnesium sulfate	2,1
Monopotassium phosphate	2	Thiamine	0,05
Yeast extract	9	Diastase	0,05

Preparation

Suspend 88,2 grams of the medium in one liter of distilled water. Mix well and dissolve by heating with frequent agitation. Boil for one minute until complete dissolution. AVOID OVERHEATING. Dispense into appropriate containers and sterilize in autoclave at 121°C for 10 minutes.

Instructions for use

Filter-membrane technique:

- Filter an appropriate volume of sample through a 0,45 µm membrane.
- Place the membrane onto the surface of an agar plate, avoiding the formation of air bubbles.
- Invert the plates and incubate at 25-30 °C for 48-72 hours.

Quality control

Solubility	Appearance	Color of the dehydrated medium	Color of the prepared medium	Final pH (25°C)
w/o rests	Fine powder	Beige	Green	4,6 ± 0,2

Microbiological test

Incubation conditions: (25-30 °C / 48-72 h)

Microorganisms	Specification
<i>Candida albicans</i> ATCC 10231	Good growth
<i>Aspergillus brasiliensis</i> ATCC 16404	Good growth
<i>Saccharomyces cerevisiae</i> ATCC 9763	Good growth

Storage

Temp. Min.: 2 °C
Temp. Max.: 25 °C

Bibliography

Jong, S.S, and M.J.Edwards 1991, American Type Culture Collection Catalog of filamentog fungi 18 the. American type Collection, Rockville, MD.
Thom and Raper, Manual of the Aspergilli 39:1945
Smith G. An Introduction to Industrial Mycology 5th Ed. Arnold LR London, 1960.