Technical Data Sheet

GranuCult® plus
m-Green broth

Ordering number: 1.20628.0500

This medium is recommended for the detection of yeasts and molds in soft drinks and other beverages.

m-Green Yeast and Mold Broth is a relatively complex formulation compared to other media used for the detection of fungi and yeast. This allows excellent fungal growth. Bacterial growth is inhibited by an acidic pH. Peptones are an excellent source of nitrogen, carbon and amino acids. Yeast extract is the vitamin source. Dextrose serves as an energy source. Potassium phosphate is a buffering agent. Magnesium sulfate, thiamine, and diastase provide essential ions, minerals, and nutrients. Bromocresol green is the pH indicator, facilitating visualization of fungal growth in the broth. The colonies of yeasts are green due to the diffusion of bromocresol green into the colonies (alkaline reaction). Acidic end products from the colonies diffuse into the medium, further reducing the pH and causing the dye to turn yellow (acidic reaction).

Typical Composition

GranuCult® plus m-Green broth	
Peptone	9.0 g/l
Yeast extract	9.0 g/l
D(+)Glucose (Dextrose)	50.0 g/l
Potassium dihydrogen phosphate	2.0
Magnesium sulfate anhydrous	1.0
Bromcresol green	0.026
Thiamine chloride hydrochloride	0.050
Copper(II) sulfate pentahydrate	0.001
Diastase	0.005
L(+)Tartaric acid	0.95
Water	n/a
pH at 25 °C	4.6 ± 0.2

Preparation

Dissolve 72 g in liter purified water. Autoclave 15 min at 121 °C.

The appearance of the medium is clear and green.

The pH value at 25 °C is in the range of 4.4 - 4.8.

Experimental Procedure and Evaluation

Depend on the purpose for which the media are used.

Incubation: 3 days at 23 - 27 °C aerobically.

Storage

The product can be used for sampling until the expiry date if stored upright, protected from light and properly sealed at +15 °C to +25 °C.

After first opening of the bottle the content can be used up to the expiry date when stored dry and tightly closed at +15 °C to +25 °C.

Disposal

Please mind the respective regulations for the disposal of used culture media (e.g. autoclave for 20 min at 121 °C, disinfect, incinerate etc.).

Quality Control

Control Strains	Inoculum CFU	Incubation	Colony color	Recovery rate (%)
Aspergillus brasiliensis (formerly *A. niger)* ATCC 16404 [WDCM 00053]	≤100	3 days at 25 ± 2°C, aerobic	White mycelia with black spores	≥50%
Sacharomyces cerevisiae ATCC 9763 [WDCM 00058]	≤100	3 days at 25 ± 2°C, aerobic	Light green to green	≥50%
Candida albicans ATCC 10231 [WDCM 00054]	≤100	3 days at 25±2°C, aerobic	Light green to green	≥50%
Bacillus subtilis ATCC 6633 [WDCM 00003]	≤100	3 days at 25±2°C, aerobic	-	Complete inhibition

Tests are conducted with adsorbent pads in combination with the membrane filtration method. Adsorbent pads in sterile petri-dishes (Petri-Pad; Ref. PD20047SO) are soaked with 2 mL m-Green broth. After filtration of the sample using an EZ-PAK® membrane filter (0.45 µm; article number EZHAWG474) the membrane filter is placed on the absorbent pad and incubated as indicated. Please refer to the actual batch related Certificate of Analysis for more details.

Literature

MacFaddin JF (1985): Media for Isolation – Identification – Cultivation – Maintenance of Medical Bacteria. Williams and Wilkins. Vol I. Baltimore.

Ordering Information

Product	Cat. No.	Pack size
GranuCult® plus m-Green broth	1.20628.0500	500 g
Petri dish with pad	PD20047S0	150 units
EZ PAK mixed cellulose esters (MCE), pore size 0.45 µm, filter diameter 47 mm, gridded white filter	EZHAWG474	4x 150 filters

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