

Technical Information

Malt Extract Agar

Product Code: DM 1137

Application: - MacConkey Agar w/ Bromo Thymol Blue is recommended for detection of lactose fermenting enteric bacteria.

Composition**

Ingredients	Gms / Litre
Malt extract	30.000
Mycological peptone	5.000
Agar	15.000
Final pH (25°C)	5.4±0.2

**Formula adjusted, standardized to suit performance parameters

Principle & Interpretation

The laboratory diagnosis of fungal infection mainly depends on direct method as compared to indirect methods. The use of malt and malt extracts for the propagation of yeasts and moulds is quite common. Reddish ⁽¹⁾ described a culture medium prepared from malt extract that was a satisfactory substitute for wort. Malt Extract Medium is similar to the formula of Galloway and Burgess ⁽²⁾ used for the detection, isolation and enumeration of yeasts and moulds.

Malt extract provides an acidic environment and nutrients favourable for growth and metabolism of yeasts and moulds. Mycological peptone rapidly gives a luxuriant growth with typical morphology and pigmentation. For mycological count, it is advisable to adjust the reaction of medium more acidic with addition of 10% lactic acid. Antibiotics may be added as sterile solutions to the molten medium immediately before pouring into sterile Petri plates ⁽³⁾ in order to suppress bacterial growth.

Methodology

Suspend 50.0 grams of powder media in 1000 ml distilled water and soak for 15 minutes. Sterilize by autoclaving at 115°C for 10 minutes. Mix well before dispensing. Avoid overheating. If desired, to adjust acidic pH use 10% Lactic Acid (MS2095).

Quality Control

Physical Appearance

Cream to beige homogeneous free flowing powder

Gelling

Firm, comparable with 1.5% Agar gel

Colour and Clarity of prepared medium

Amber coloured clear to slightly opalescent gel forms in Petri plates

Reaction

Reaction of 5.0% w/v aqueous solution at 25°C.pH:-5.20-5.60

pH range 5.20-5.60

Cultural Response/ characteristics

DM 1137: Cultural characteristics observed after an incubation at 25-30°C for 48-72 hours.

Organism	Inoculum (CFU)	Growth	Recovery
*Aspergillus brasiliensis ATCC 16404	50-100	luxuriant	
Candida albi cans ATCC 10231	50-100	luxuriant	>=70 %
Saccharomyces cerevisiae ATCC 9763	50-100	luxuriant	>=70 %

Key : * - Formerly known as Aspergillus niger



Dehydrated Culture Media
Bases / Media Supplements

Storage and Shelf Life

Dried Media: Store below 30°C in tightly closed container and use before expiry date as mentioned on the label.

Prepared Media: 2-8° in sealable plastic bags for 2-5 days.

Further Reading

1. Reddish A., 1919, Abstr. Bacteriol., 3:6.
2. FDA Bacteriological Analytical Manual, 2005, 18th Ed., AOAC, Washington, DC.
3. Gallowey L. D. and Burgess R., 1952, Applied Mycology and Bacteriology, 3rd Ed., Leonard Hill, London, pg. 54 and 57.

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