

Technical Information

Malt Extract Broth Base

Product Code: DM 1255

Application: - Malt Extract Broth Base is recommended for the detection, isolation and enumeration of yeasts and moulds.

Composition**

Ingredients	Gms / Litre
Malt extract	17.000
Mycological peptone	3.000
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 versus indirect methods. Considerable importance should be given to direct microscopy in addition to isolation of the organisms. 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 Broth is recommended for the examination of yeasts and moulds in the U.S. Food and Drug Administrations Bacteriological Analytical Manual⁽²⁾. For mycological counts preferably more acidic medium is prepared which can suppress bacterial growth.

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. In order to suppress bacterial growth antibiotics may be added as sterile solutions to the molten medium immediately before dispensing into sterile tubes⁽³⁾.

Malt Extract Broth Base has been widely used in the maintenance, isolation and identification of fungi and it is also proposed in several pharmacopeias as a medium for the control of sterility in pharmaceutical products, though it is mostly used for comparative morphological studies.

Methodology

Suspend 20 grams of powder media in 1000 ml distilled water and soak for 15 minutes. Shake well & heat to dissolve the medium completely. Sterilize by autoclaving at 10 lbs pressure (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 yellow homogeneous free flowing powder

Colour and Clarity of prepared medium

Amber coloured clear solution in tubes

Reaction

Reaction of 2.0% w/v aqueous solution at 25°C. pH: 5.4±0.2

pH range 5.20-5.60

Cultural Response/ characteristics

DM 1255: Cultural characteristics observed after an incubation at 25-30°C for 48-72 hours.



Dehydrated Culture Media
Bases / Media Supplements

Organism	Inoculum (CFU)	Growth
* <i>Aspergillus brasiliensis</i> ATCC 16404	50-100	luxuriant
<i>Candida albicans</i> ATCC 10231	50-100	luxuriant
<i>Saccharomyces cerevisiae</i> ATCC 9763	50-100	luxuriant
*Key: Formerly known as <i>Aspergillus niger</i> ATCC 16404		

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. Galloway L. D. and Burgess R., 1952, Applied Mycology and Bacteriology, 3rd Ed., Leonard Hill, London, pg. 54 and 57.

Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
- The product conform solely to the technical information provided in this booklet and to the best of knowledge research and development work carried at **CDH** is true and accurate
- **Central Drug House Pvt. Ltd.** reserves the right to make changes to specifications and information related to the products at any time.
- Products are not intended for human or animal diagnostic or therapeutic use but for laboratory, research or further manufacturing of diagnostic reagents extra.
- Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for infringement of any patents.
- Do not use the products if it fails to meet specifications for identity and performance parameters.

