



Ready Prepared Media

Technical Information

Malt Extract Agar Plate

Product Code: PM 1137

Application: Recommended for the detection, isolation and enumeration of yeast and moulds from clinical and non clinical samples .

Composition**

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

**Formula adjusted, standardized to suit performance parameters

Principle & Interpretation

The laboratory diagnosis of fungal infection relies largely on direct as opposed to indirect methods. The use of malt and malt extracts from the propagation of yeast and moulds is quite common. Reddish(1) described a cultural 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) is used for the detection, isolation and enumeration of yeast and moulds.

Malt extract provides an acidic environment and nutrients favorable for growth and metabolism of yeast and moulds. Mycological Pepton 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 solution to the molten medium immediately before pouring into sterile petri plates (3) in order to suppress bacterial growth .

Type of specimen

Clinical sample-skin scrapings.nail scrapings etc.

Specimen Collection and Handling

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (4,5).After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions

In Vitro diagnostic use only. Read the label before opening the container. Wear protective gloves/protective clothing/eye protection/face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling clinical specimens. Safety guidelines may be referred in individual safety data sheets.

Limitations

1. Individual organisms differ in their growth requirement and may show variable growth patterns on the medium .
2. Each lot of the medium has been tested for the organisms specified on the COA. It is recommended to users to validate the medium for any specific microorganism other than mentioned in the COA based on the user's unique requirement.
3. It is recommended to store the plates at 24-30°C to avoid minimum condensation .



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Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature .

Methodology

Either streak, inoculate or surface spread the test inoculum (50-100 CFU) aseptically on the plate.

Quality Control

Appearance

Sterile Malt Extract Agar in 90 mm disposable plate with smooth surface and absence of black particles/cracks/bubbles

pH

5.20-5.60

Colour and Clarity of prepared medium

Light amber coloured medium. In 25ml of medium in 90 mm plate.

Sterility Check

Passes release criteria

Cultural Response

Cultural characteristics observed after an incubation at 25-30°C for 48-72 hours. Incubate for 7 days for Trichophyton species.

Organism	Inoculum (CFU)	Growth	Recovery
# <i>Aspergillus brasiliensis</i> ATCC 16404 (00053*)	50-100	luxuriant	
<i>Candida albicans</i> ATCC10231 (00054*)	50-100	luxuriant	>=70%
<i>Saccharomyces cerevisiae</i> ATCC 9763 (00058*)	50-100	luxuriant	>=70%
<i>Penicillium chrysogenum</i> ATCC 9179	50-100	luxuriant	
<i>Trichophyton mentagrophytes</i> ATCC9533	50-100	luxuriant	

Key : (*) Corresponding WDCM numbers.

(#) Formerly known as *Enterobacter aerogenes*

Storage and Shelf Life

On receipt, store between 20-30°C. Use before expiry date on the label. Use before expiry date on the label. Product performance is best if used within stated expiry period.

Disposal

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with clinical sample must be decontaminated and disposed of in accordance with current laboratory techniques (4,5).



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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.
4. Isenberg, H.D. Clinical Microbiology Procedures Handbook. 2nd Edition.
5. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.

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 developmentwork carried at **CDH** is true and accurate
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