Malt Extract Agar Base (w/ Mycological Peptone)

M137

Intended Use:

Recommended for the detection, isolation and enumeration of yeasts and moulds.

Composition**

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

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 50.0 grams in 1000 ml purified/distilled water and soak for 15 minutes. Sterilize by autoclaving at 115°C(10 lbs pressure) for 10 minutes. Mix well before dispensing. Avoid overheating. If desired, to adjust acidic pH use 10% Lactic Acid solution (FD095).

Principle And Interpretation

The laboratory diagnosis of fungal infection relies largely on direct as opposed 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 favorable 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 solution .

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.

Type of specimen

Clinical samples : skin scrapings.

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. It is a general purpose medium which supports growth of bacterial and fungal cultures.
2. Further biochemical tests must be carried out for further identification

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.

Quality Control

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 : 5.4±0.2

pH

5.20-5.60

Cultural Response

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

Organism	Inoculum (CFU)	Growth	Recovery
# *Aspergillus brasiliensis* ATCC 16404 (00053*)	50-100	luxuriant	-
Candida albicans ATCC 10231 (00054*)	50-100	luxuriant	>=70%
Saccharomyces cerevisiae ATCC 9763 (00058*)	50-100	luxuriant	>=70%
Penicillium chrysogenum ATCC 9179	50-100	luxuriant	-
##*Trichophyton interdigitale* ATCC 9533	50-100	luxuriant	-

Key : *Corresponding WDCM numbers.

Formerly known as *Aspergillus niger* # #Formerly known as *Trichophyton mentagrophytes*

Storage and Shelf Life

Store between 10- 30°C in a tightly closed container and the prepared medium at 20-30°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle in order to prevent lump formation due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in dry ventilated area protected from extremes of temperature and sources of ignition Seal the container tightly after use. 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).

Reference

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.

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IVD ***In vitro* diagnostic medical device**

CE Marking

30°C 10°C **Storage temperature**

Do not use if package is damaged