Malt Extract Agar

Intended Use
Malt Extract Agar is used for enumeration, cultivation and isolation of Yeasts and Moulds.

Summary
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 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 used for the detection, isolation and enumeration of yeasts and moulds.

Principle
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.
Antibiotics may be added as sterile solutions to the molten medium immediately before pouring into sterile petriplates in order to suppress bacterial growth.

Formula*

Ingredients	g/L
Malt Extract	30.0
Mycological Peptone	5.0
Agar	15.0
Final pH (at 25°C)	5.4 ± 0.2

*Adjusted to suit performance parameters.

Storage and Stability
Store dehydrated medium below 30°C in tightly closed container and the prepared medium at 2°C-8°C. Avoid freezing and overheating. Use before expiry date on the label. Once opened keep powdered medium closed to avoid hydration.

Type of Specimen
Clinical samples - Skin scrapings

Specimen Collection and Handling
Ensure that all samples are properly labelled. Follow appropriate techniques for handling samples as per established guidelines. Some samples may require special handling, such as immediate refrigeration or protection from light, follow the standard procedure. The samples must be stored and tested within the permissible time duration. After use, contaminated materials must be sterilized by autoclaving before discarding.

Directions
1. Suspend 50.00 g of the powder in 1000 mL purified / distilled water.
2. Mix thoroughly. Soak for 15 minutes.
3. Sterilize by autoclaving at 115°C (10 psi) for 10 minutes as per validated cycle.
4. DO NOT OVERHEAT. Mix well before dispensing.
5. To adjust acidic pH, use 10% lactic acid.

Quality Control
Dehydrated Appearance: Cream to beige homogenous, free flowing powder
Prepared Appearance: Amber to light brown coloured, clear to slightly opalescent gel forms in petridishes.
Growth Promotion Test: Growth promotion is carried out in accordance with the harmonized method of USP/EP/JP/IP and growth is observed after an incubation at 20°C-25°C for ≤5 days for fungi.
Growth Promoting Properties: The test results observed are within the specified temperature and shortest period of time specified in the test, inoculating ≤100 cfu of appropriate microorganism at 20°C-25°C.

Organism (ATCC)	Growth
Aspergillus brasiliensis WLRI 034(120) (16404)	Good
Candida albicans 3147 (10231)	Good
Saccharomyces cerevisiae NRRL Y-567 (9763)	Good

Note: For good growth - Growth obtained on test media should not differ by a factor greater than 2 from calculated value for a standardized inoculum.
Growth for *Aspergillus brasiliensis* is observed after 72 hours at 20°C-25°C for quantitative test and the same is carried out for qualitative test and confirmed characteristic growth (White mycelial growth with black spores) after ≤5 days.

Performance and Evaluation

Performance of the product is dependent on following parameters as per product label claim:

1. Directions
2. Storage
3. Expiry

Precautions / 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.

Warranty

This product is designed to perform as described on the label and package insert. The manufacturer disclaims any implied warranty of use and sale for any other purpose.

Reference

1. Reddish A., 1919, Abstr. Bacteriol., 3:6.
2. FDA Bacteriological Analytical Manual, 2005, 18th Ed., AOAC, Washington, DC.
3. Data on file: Microxpress®, A Division of Tulip Diagnostics (P) Ltd.

Product Presentation:

Cat No.	Product description	Pack Size
201130310500	Dehydrated Culture Media	500 g