

Malt Extract Agar

Catalog : HB4176-5-500

Malt Extract Agar is used for the identification of yeasts and molds in food, including milk and dairy products, and also in environmental samples. It is particularly recommended for the analysis of beverages in which yeasts are a predominant ingredient.

Approximate Formula:

Ingredients	gm/liter
Malt Extract	30.0
Mycological Peptone	5.0
Agar	15.0
Final pH 5.4±0.2 at 25 °C	

*Adjusted and/or supplemented as required to meet performance criteria.

Directions:

Suspend 50.0 grams in 1 liter of distilled water and boil to dissolve. Sterilise by autoclaving at 121 °C for 10 minutes. If it is desired to adjust the medium to pH3.5, cool to 55 °C and add approximately 2-3ml of 10% Lactic Acid to 100ml Malt Extract Agar.

Principle and Interpretation:

Malt extract malt and mycological peptone provide the necessary nitrogen compounds, carbon, amino acids, vitamins and nutrient sources required for growth of microorganisms. Agar is the solidifying agent. The low pH of the medium promotes the growth of most yeasts and fungi, while bacterial growth is more or less strongly inhibited. This composition facilitates the good growth of yeasts, fungi.

Appearance:

Dehydrated medium is a free flowing yellowish powder. The prepared medium is a kind of yellowish brown transparent gel.

Precautions:

This medium is for laboratory use only. Dried medium which is past shelf life, caking or color variation cannot be used.

Storage conditions and Shelf life:

Malt Extract Agar must be stored tightly capped in the original container at 5-30 °C. The dehydrated medium has a shelf life of 5 years from date of manufacturing. Prepared medium may be stored, out of direct light at 2-8 °C.

Quality control:

Prepare the culture medium as per label directions. Inoculate and incubate at 30±1 °C for 48-72 h.

Microorganism	Strains Number	Inoculum (CFU)	Growth	Recovery	Remarks
<i>Aspergillus niger</i>	ATCC 16404	10-100	Luxuriant	≥ 70%	Black spore
<i>Saccharomyces cerevisiae</i>	ATCC 18790	10-100	Luxuriant	≥ 70%	White colonies
<i>Candida albicans</i>	ATCC 10231	10-100	Luxuriant	≥ 70%	White colonies
<i>Escherichia coli</i>	ATCC 8739	100-1000	Inhibited	/	Inhibited

References:

- Galloway, L. D., Burges, R. (1952): Applied Mycology and Bacteriology. Leonard Hill, London.
- Merz, W. G., Roberts, G. D. (1995): Detection and recovery of fungi from clinical specimens. In: Manual of Clinical Microbiology. Eds. Murray, P. R., Baron, J., Faller, M. A., Tenover, F. C. and Tenover, R. A. ASM Press, Washington DC, p. 709-722.
- Samson, R.A., Hocking, A.D., Pitt, J.I. and King, A.D. (1992): Modern methods in food mycology. Elsevier. Amsterdam.