

TM 382 - MALT AGAR

INTENDED USE

For cultivation and isolation of yeasts and molds

PRODUCT SUMMARY AND EXPLANATION

Media based on malt extract may be considered as general growth substrates due to their richness and nutrient balance. They are very suitable for the cultivation of fastidious microorganisms. With acidic pH, they are used for the isolation, cultivation and maintenance of yeast and moulds.

Malt media for yeasts and moulds have been widely used for many years. In 1919, Reddish prepared a satisfactory substitute for beer wort from malt extract. Malt Agar is included in Official Methods of Analysis of AOAC International. It is recommended by APHA for use in both antibiotic and acidified standard methods for yeast and mould counts in food. This medium is also used for maintaining stock cultures of fungi.

Heating process during rehydration and sterilization should be for shorter period as excessive heat causes partial hydrolysis of the agar, which results in inability to gel properly when cooled. If desired additional 5 grams of agar may be added.

COMPOSITION

Ingredients	Gms / Ltr
Malt extract	30.000
Agar	15.000

PRINCIPLE

Malt Agar contains malt extract, which provides carbon, protein and nutrient sources required for the growth of microorganisms. The acidified medium inhibits the growth of bacteria and allows good recovery of yeasts and moulds.

INSTRUCTION FOR USE

- Dissolve 45 grams in 1000 ml distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 118°C for 15 minutes.
- Avoid overheating, as it will result in a softer and darker agar.
- Cool to 45-50°C. Mix well and pour into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Cream to brownish yellow homogeneous free flowing powder.
Appearance of prepared medium	: Light amber coloured clear to slightly opalescent gel forms in tubes or Petri plates.
pH (at 25°C)	: 5.5±0.2

INTERPRETATION

Cultural characteristics observed after an incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
---------------	------	-------------------	--------	----------	------------------------	-------------------

<i>Aspergillus niger</i>	16404	10-100	Luxuriant	>=70 %	25-30°C	40-48 Hours
<i>Candida albicans</i>	10231	10-100	Luxuriant	>=70 %	25-30°C	40-48 Hours
<i>Saccharomyces cerevisiae</i>	9763	10-100	Luxuriant	>=70 %	25-30°C	40-48 Hours
<i>Penicillium chrysogenum</i>	9179	10-100	Luxuriant	>=70 %	25-30°C	40-48 Hours
<i>Trichophyton mentagrophytes</i>	9533	10-100	Luxuriant	>=70 %	25-30°C	40-48 Hours

PACKAGING:

In pack size of 100 gm and 500 gm bottles.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.

Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.







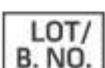


DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES

1. Reddish, 1919, Abstr. Bacteriol., 3:6.
2. Williams, (Ed.), 2005, Official Methods of Analysis of the Association of Official Analytical Chemists, 19th Ed., AOAC, Washington, D.C.
3. Salfinger Y., and Tortorello M.L. Fifth (Ed.), 2001, Compendium of Methods for the Microbiological Examination of Foods, 5th Ed., American Public Health Association, Washington, D.C.
4. Can. Dept. Agr. Pamphlet, 92-N.S.
5. American Public Health Association, Standard Methods for the Examination of Dairy Products, 1978, 14th Ed., Washington D.C.
6. Wehr H. M. and Frank J. H., 2004, Standard Methods for the Microbiological Examination of Dairy Products, 17th Ed., APHA Inc., Washington, D.C.
7. Isenberg, H.D. Clinical Microbiology Procedures Handbook. 2nd Edition.
8. 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.



 GMP Good Manufacturing Practices Certified	 Best Before	 QTY. Quantity	 REF Catalogue Number	 Manufacturer
 Temperature Unit	 LOT/ B. NO. Lot / Batch Number	 Consults Instructions for Use	 QR Code	

NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**
Revision: 08 Nov., 2019