

CM 21,150 - MALT EXTRACT GLUCOSE PEPTONE AGAR

INTENDED USE

For isolation and enumeration of yeasts and moulds from food products in accordance with FDA BAM, 1998.

PRODUCT SUMMARY AND EXPLANATION

Yeasts and moulds are known to cause various degrees of deterioration and decomposition of foods. They can invade and grow on any type of processed or unprocessed foods and in food mixtures. Several foodborne moulds and possibly yeasts may also be hazardous to human and animal health because of their ability to produce mycotoxin. 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 Glucose Peptone Agar is recommended by FDA BAM, 1998 for the detection, isolation and enumeration of yeasts and moulds.

COMPOSITION

Ingredients	Gms / Ltr
Malt extract	20.000
Dextrose (Glucose)	20.000
Peptone	1.000
Agar	20.000

PRINCIPLE

Malt extract provides an acidic environment and nutrients favorable for growth and metabolism of yeasts and moulds. Peptone being the nitrogen source supports the luxuriant growth of the organisms. For mycological count, it is advisable to adjust the reaction of medium more acidic with addition of 10% lactic acid. Antibiotics such as chloramphenicol may be added as sterile solutions to the molten medium immediately before pouring into sterile Petri plates in order to suppress bacterial growth. *Aspergillus*, *Penicillium* and most other foodborne mould genera may be directly viewed on this medium with low power (10-30X) magnification.

INSTRUCTION FOR USE

Dissolve 61.0 grams in 1000 ml purified/distilled water.
Heat to boiling to dissolve the medium completely.
Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
Cool to 45- 50°C. Mix well and pour into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium : Amber coloured clear to slightly opalescent gel forms in Petri plates.
pH (at 25°C) : 5.4±0.2

INTERPRETATION

Cultural characteristics observed after an incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
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Aspergillus brasiliensis	16404	10-100	Luxuriant	>=70 %	25-30°C	48-72 Hours
Candida albicans	10231	10-100	Luxuriant	>=70 %	25-30°C	48-72 Hours
Penicillium notatum	10108	10-100	Luxuriant	>=70 %	25-30°C	48-72 Hours
Penicillium chrysogenum	10106	10-100	Luxuriant	>=70 %	25-30°C	48-72 Hours

PACKAGING:

Inpacksizeof500 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.

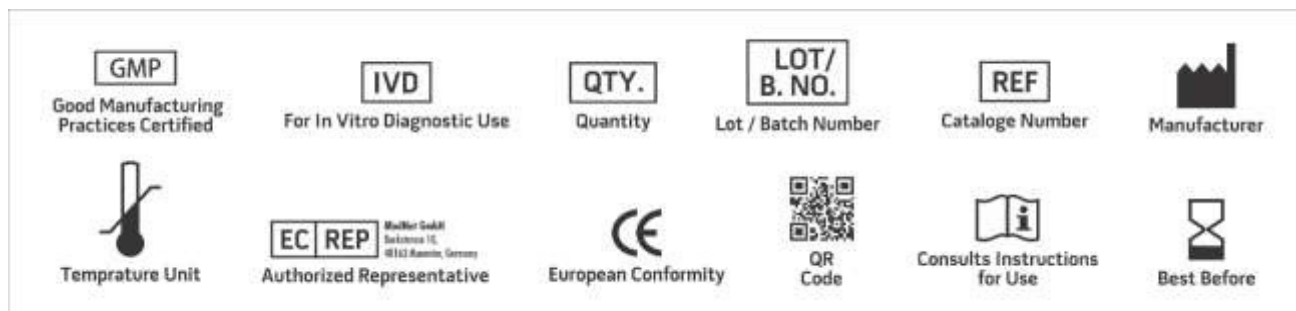
DISPOSAL

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

REFERENCES

1. American Public Health Association, Standard Methods for the Examination of Dairy Products, 1978, 14th Ed., Washington D.C.
2. FDA, U.S. 1998. Bacteriological Analytical Manual. 8 ed. Gaithersburg, MD: AOAC International.
3. Galloway, L. D. and Burgess, R. 1952. Applied Mycology and Bacteriology. Leonard Hil Ed. 3 ed. London.
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.
6. Reddish, A. 1919. Abstr. Bacteriol 3(6).
7. Salfinger Y., and Tortorello M.L. Fifth (Ed.), 2015, Compendium of Methods for the Microbiological Examination of Foods, 5th Ed., American Public Health Association, Washington, D.C.
8. Wehr H. M. and Frank J. H., 2004, Standard Methods for the Microbiological Examination of Dairy Products, 17th Ed., APHA Inc., Washington, D.C.





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