TM 2232 - MALT AGAR, W/ 2% AGAR

INTENDED USE

For the detection and isolation of yeasts and moulds from dairy products, foods and other materials. Also used for carrying stock cultures of yeasts and moulds in accordance with FDA BAM, 1998.

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, w/ 2% Agar is recommended for the detection and isolation of yeasts and moulds from dairy products, foods and other materials. It is also recommended by FDA BAM for the study of yeast and moulds from cosmetics. This medium can also be used for maintaining stock cultures of fungi.

For isolation of yeasts and fungi from cosmetics, preliminary sample preparation is done in accordance with the BAM protocol. Add either 5 or 10 ml of prepared cosmetic preparation depending on the type of the sample to 45 or 90 ml, respectively, of MLB, for 10-2 dilution. Dilute samples decimally in Letheen Broth, modified to obtain complete dilution series from 10-1 to 10-6. Total yeast and mould count is checked using spread plate technique. 0.1 ml portions of each dilution in duplicates is transfered to appropriately labeled plates of either Malt Agar, w/ 2% Agar or Potato Dextrose Agar w/2% Agar, both containing 40 ppm Chlortetracycline. Incubate up to 7 days at 30 ± 2°C and report the counts as the average of the two plates. For enrichment of fungal cultures, dilute prepared sample decimally in Sabouraud's dextrose broth and incubate as described above. If growth occurs, sub culture on Sabouraud's dextrose agar, Malt Agar, w/ 2% Agar or Potato Dextrose Agar w/2% Agar with 40 ppm chlortetracycline on later 2 agars.

COMPOSITION

Ingredients	Gms / Ltr
Malt extract	30.000
Agar	20.000

PRINCIPLE

Malt extract 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 50 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.
- 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.

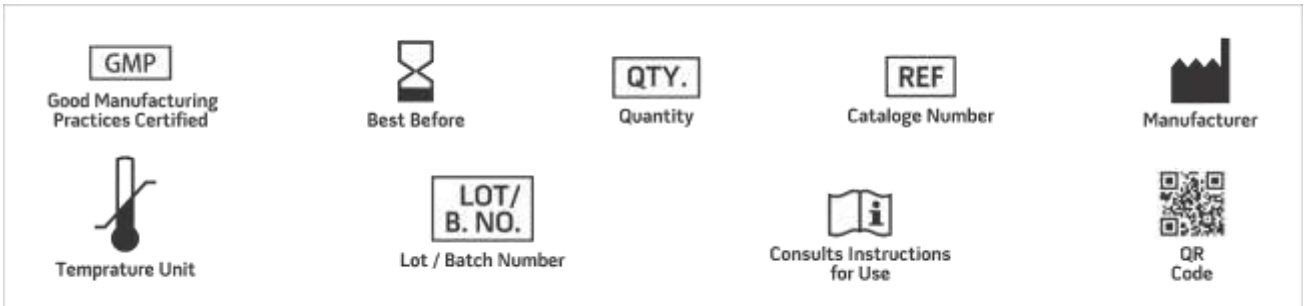
Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
Aspergillus niger	16404	10-100	Luxuriant	>=70 %	25-30°C	40-48 Hours
Candida albicans	10231	10-100	Luxuriant	>=70 %	25-30°C	40-48 Hours
Saccharomyces cerevisiae	9763	10-100	Luxuriant	>=70 %	25-30°C	40-48 Hours

PACKAGING:
In pack size of 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. FDA, U.S. 1998. Bacteriological Analytical Manual. 8 ed. Gaithersburg, MD: AOAC International.
3. Can. Dept. Agr. Pamphlet, 92-NS



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