

Specification

Medium for detection, isolation and enumeration of fungi, particularly yeast and moulds, also from air and water samples.

Presentation

10 Prepared bottles
Bottle 250 ml
with: 200 ± 5 ml

Packaging Details

1 box with 10 bottles 250 ml. Injectable cap: Plastic screw inner cap. The use of syringes needles with a diameter greater than 0.8 mm is not recommended

Shelf Life

18 months

Storage

8-25 °C

Composition

Composition (g/l):

Malt extract.....30.0
Soy peptone.....3.00
Agar.....15.0

PROTECT FROM LIGHT AT ALL TIME. AVOID
PROLONG EXPOSURE ON LIGHT.

Description /Technique

Description:

Malt Extract Agar may support the growth of almost all of the fungi very well, because of its balanced composition, and restrains most of the bacteria due to the strong acidity. Should more selection against the bacterial growth be desired, readjust the pH to 3,5.

Technique:

To use, the contents of the bottle should be poured into plates. Melt the flask in a microwave or in a water bath at 100°C. Do not overheat so as not to alter the consistency of the agar medium. Shake the bottle to homogenize the medium before pouring into plates.

Collect, dilute and prepare samples and volumes as required according to specifications, directives, official standard regulations and/or expected results.

Filter the sample through a 0.45 mm pore membrane and apply it onto the surface of the agar.

Incubate the plates right side up aerobically at 20-25 °C for up to 5/7 days.

(Incubation times longer than those mentioned above or different incubation temperatures may be required depending on the sample, on the specifications,...)

After incubation, enumerate all the colonies that have appeared onto the surface of the agar.

Each laboratory must evaluate the results according to their specifications.

Calculate total microbial count per ml of sample by multiplying the average number of colonies per plate by the inverse dilution factor if streaked a diluted sample. Report results as Colony Forming Unit (CFU's) per ml or g along with incubation time and temperature.

Note: The solid mediums can be melted in different ways: autoclave, bath and, if the customer considers appropriate, also the microwave. Whenever the microwave option is chosen, it is necessary to take certain safety measures to avoid breaking of the containers, such as loosening the screw cap and putting the bottle or tube in a water bath in the microwave. The fusion temperature and time will depend on the shape of the container, the volume of medium and the heat source. Avoid overheating as both the heating periods.

Quality control

Physical/Chemical control

Color : yellow

pH: 4.3 ± 0.2 at 25°C

Microbiological control

Melt the medium - Prepare plates - Transfer the filtration membrane

Membrane Filtration; Practical range 100 ± 20 CFU. min. 50 CFU (productivity).

Microbiological control according to ISO 11133:2014/A1:2018.

Aerobic. Incubation at 22.5 ± 2 °C 3-5 days (moulds and yeast).

Microorganism

Aspergillus brasiliensis ATCC® 16404

Candida albicans ATCC® 10231, WDCM 00054

Growth

Good (≥70%)

Good (≥70%)

Sterility Control

Incubation 48 hours at 30-35 °C and 48 hours at 20-25 °C: NO GROWTH.

Check at 7 days after incubation in same conditions.

Bibliography

- ATLAS, R.M., L.C. PARKS (1993) Handbook of Microbiological Media. CRC Press, Inc. London.
- BALLOWS, HAUSLER, HERMAN, ISENBERG & SHADOMY (eds.) (1991) Manual of Clinical Microbiology. ASM. Washington.
- DOWNES, F.P. & K. ITO (2001) Compendium of Methods for the Microbiological Examination of Foods. 4th ed. APHA. Washington.
- FDA (Food and Drug Administrations) (1978) Bacteriological Analytical Manual A.O.A.C. Washington.
- ISO 11133:2014/ Adm 1:2018. Microbiology of food, animal feed and water. Preparation, production, storage and performance testing of culture media.
- ISO 16000-17:2008 Indoor Air - Detection and enumeration of moulds - Culture Based method.
- RAPP, M (1974) Indikator-Zusätze zur Keimdiffenzierung auf wärze und Malzextrakt Agar. Milchwiss. 29:341-34.
- REIS, J. (1972) Ein selektives kulturmedium für der Nachweiss von *Aspergillus flavus*. Zbl. Bakt. Hyg. I. Abt. Orig. 220:564-566.