

M Malt Extract Broth No. 1

Art. No. 02-111

Specification

Liquid culture medium for moulds and yeast.

Formula* in g/L

Malt extract.....13,00
Dextrine..... 2,50
Gelatin peptone.....5,00
Final pH 5,5 ± 0,2 at 25°C

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

Directions

Dissolve 20,5 g of powder in 1 L of distilled water, heating if necessary. Distribute into suitable containers and sterilize in the autoclave at 121°C for 15 minutes. **Do not overheat.**

Description

Malt Extract Broth is a classic culture medium for moulds and yeasts. Malt Extract has sufficient sugar (maltose, glucose, sucrose) to allow copious growth, and growth factors are provided by the gelatine peptone. Malt Extract Broth has been widely used in maintenance, isolation and identification of fungi, and it is also proposed in several pharmacopoeias as a medium for the control of sterility in pharmaceutical products. Its use mostly is mostly for comparative morphological studies.

Technique

The Galloway & Burgess Technique for morphogenetic studies is as follows: A short shaped cone made of filter paper is put in a Petri dish with 7-8 mL of liquid medium. The sample to test is inoculated on the wet surface of the filter paper cone and incubation is carried out at room temperature with illumination.

Should more selectivity be desired, a few millilitres of 10% lactic acid, or 5% tartaric acid can be added.

References

- FDA (Food and Drug Administrations) (1995) Bacteriological Analytical Manual. 8th ed. Rev A AOAC International Inc. Gaithersburg.
- GALLOWAY, L.D. & R. BURGESS (1952) Applied Mycology and Bacteriology. 3rd ed. Leonard Hill. London.
- ISO/TS 11133-1: 2009. Microbiology of food and animal feeding stuffs.- Guidelines on preparation and production of culture media. Part 1: General guidelines on quality assurance for the preparation of culture media in the laboratory.
- ISO/TS 11133-2: 2003 Corr. 2004. Microbiology of food and animal feeding stuffs.- Guidelines on preparation and production of culture media. Part 2: Practical guidelines on performance testing of culture media.
- VANDERZANT & SPLITTSTOESSER (1992) Compendium of Methods for the Microbiological Examination of Foods. 3rd ed. APHA. Washington.

Storage

For laboratory use only. Keep tightly closed, away from bright light, in a cool dry place (+4°C to 30°C and <60% RH).

Quality control

Incubation temperature: 30°C ± 2,0

Incubation time: 48 h - 5 days

Inoculum: 10-100 CFU (Productivity) (ISO/TS 11133-1/2)

Microorganism	Growth	Remarks
<i>Bacillus subtilis</i> ATCC 6633	Poor to good	24-48 h
<i>Escherichia coli</i> ATCC 8739	Poor to good	24-48 h
<i>Aspergillus brasiliensis</i> ATCC 16404	Good - very good	-
<i>Saccharomyces cerevisiae</i> ATCC 9763	Good - very good	-
<i>Candida albicans</i> ATCC 10231	Good - very good	-