

M-ENDO AGAR
Presentation

Petri dishes 49x13mm or 90x15mm.
Flask with 100ml or 400ml.

Sterilization method

Moist heat.

Application

Culture medium used for the cultivation and enumeration of fecal coliforms in water samples using the membrane filtration technique.

Principle

m-Endo agar contains peptones as a carbon, nitrogen, vitamin, and mineral source. It contains yeast extract that provides B-complex vitamins that stimulate bacterial growth. The carbohydrate present is lactose, containing sodium deoxycholate and sodium lauryl sulfate, which are inhibitors. As a pH indicator, it contains basic fuchsin. Lactose-fermenting bacteria produce acetaldehyde, which reacts with sodium sulfite and fuchsin present in the medium, forming pink to red colonies. The development of a metallic sheen on colonies occurs when the bacterium produces aldehyde with rapid lactose fermentation. Colonies of non-lactose-fermenting bacteria are clear or colorless.

How to use

Flasks: Melt the culture medium and cool to 45-50°C. Inoculate the sample onto sterile Petri dishes, following the technique established by the laboratory. Pour the previously melted and cooled culture medium onto the inoculated plates (between 15-20ml). Mix the inoculum with the culture medium by gently swirling the plates on a flat surface in a figure-eight motion. Allow the medium to cool and solidify. Incubate the plates in a bacteriological incubator for the time and temperature required by the adopted technique. After the incubation period, assess the growth.

Note: do not heat using thermal blanket or plate.

Plates: Inoculate according to the methodology used by the laboratory. Incubate for the time and temperature specified in the adopted technique.

Quality Control

Test	Result
Sterility	Absence of microbial growth
<i>Escherichia coli</i> ATCC 25922	Good growth in pink to red colonies with metallic sheen
<i>Salmonella enterica</i> ATCC 14028	Good growth in transparent to pink colonies
<i>Staphylococcus aureus</i> ATCC 25923	Inhibited growth
Appearance	Solid medium, pink, slightly opalescent, free of precipitates or visible particles
pH at 25°C	7.2 ± 0.2

Results interpretation

Fecal coliforms: Pink to red colonies. Non-fecal coliforms: Clear, pink to colorless colonies.

In case of growth, perform microscopic analysis and biochemical tests to identify isolated genera and species, if necessary. Perform reading according to official compendia or internal laboratory methodology.

Precautions and special care

Avoid temperature fluctuations during storage to reduce water condensation and accumulation inside plates. It is recommended storing plates with the medium facing upwards. If necessary, discard or dry the accumulated water. Allow the product reach the room temperature before use. It is not recommended the storage using frost-free refrigerators due to the dehydrating effect of this type of equipment.

Product intended for *in vitro* diagnostic use only.

Restricted for use by professionals. Do not inhale or ingest.

Do not use the product beyond the expiration date, with signs of contamination, or if it has changed color. In the presence of contamination, the product should be immediately discarded.

Do not use the product if the packaging is damaged or tampered with.

Storage

Store between 2-15°C in a dry place and protect from light. The product maintains its performance even up to 7 days at room temperature during transportation.

Shelf-life

Plates: 90 days from the date of manufacture.

Flasks: 180 days from the date of manufacture.

Disposal of the product

After use, the product must be handled at the generating unit before environmentally appropriate final disposal, in accordance with official regulations.

Quality Guarantee

bioBoaVista guarantees the quality of its products as long as they are used according to their respective instructions and in accordance with national and international references. bioBoaVista does not take responsibility for the use of its products for purposes other than those described and approved by the company. All clinical diagnoses should be analyzed in conjunction with clinical evidence and not solely based on laboratory results.

References

1. Becton, Dickinson and Company. Difco & BBL Manual. Manual of Microbiological Culture Media, 2nd ed., 2009.
2. ISO 11133:2014. Microbiology of food, animal feed and water - Preparation, production, storage and performance testing of culture media.