

PRODUCT INFORMATION

Product Type: Little Dishes 50mm

Cat No. LD558 - MEI AGAR

Intended Use:

m-EI Chromogenic Agar Base is recommended for the detection and enumeration of enterococci in water by the membrane filter technique.

For laboratory use only.

Principle and Uses:

The medium was developed as a single-step procedure that does not require the transfer of the membrane filter to another substrate. Observation of blue color colonies confirms the presence of enterococci.

A wide range of sample volumes or dilutions can be tested by this single-step membrane filtration procedure for the detection and enumeration of enterococci in potable, fresh, estuarine, marine and shellfish-growing waters.

Peptone provides nitrogen, vitamins, minerals and amino acids essential for growth.

Yeast extract provides trace elements, vitamins and amino acids.

Esculin is hydrolyzed by enterococci to form esculetin and dextrose.

Cycloheximide inhibits most fungi, and the **Sodium azide** inhibits Gram negative bacteria.

X-Glucoside is the substrate of the glucosidase-positive enterococci

Agar is added into the medium as a solidifying agent.

Nalidixic acid enhances selectivity by inhibiting Gram-negative bacteria.

2,3,5-Triphenyltetrazolium chloride (TTC) acts as a redox indicator. Viable enterococci reduce TTC to form red/maroon intracellular formazan, aiding colony visualization.

Typical reaction:

Enterococcus spp. produce blue halos (due to substrate hydrolysis) with red/maroon colony centers from TTC reduction.

Limitations

Some non-enterococcal organisms may grow if selectivity conditions are compromised.

Improper incubation temperature may reduce selectivity.

Over-incubation may affect colony coloration.

Composition

Bacteriological agar - 15 g/L

Cycloheximide - 0.05 g/L

Esculin - 1 g/L

Peptone - 10 g/L

Sodium azide – 0.15 g/L

Sodium chloride - 15 g/L

Yeast extract - 30 g/L

X-Glucoside – 0.75 g/L

Nalidixic Acid - 240 mg/L

2,3,5-Triphenyltetrazolium chloride (TTC) - 0.02 g/L

Storage: 2–8°C

Appearance: Light amber to pale reddish, protect from light (TTC is light sensitive), avoid freezing

pH Range: 6.9 - 7.3

Package contents: 5 plates in a package

Exp. Date: Printed on label and on the item.

Required materials not supplied: Laboratory equipment as required.

Warning and Precautions - For professional use only. Follow good microbiological lab practices while handling specimens and culture. Do not use Petri dishes if they show evidence of microbial contamination, discoloration, drying, cracking, or other signs of deterioration. Avoid freezing and overheating. The Petri Dishes may be used / inoculated up to the expiration date and incubated for the recommended incubation times. After use and prior to discarding, specimen containers and all contaminated material, including the used culture media and contaminated culture containers, must be sterilized or incinerated by validated procedures. Since the nutritional requirements of organisms vary, some strains may be encountered that fail to grow or grow poorly on this medium.

If excessive moisture is observed, invert the bottom over an off-set lid and allow to air dry in order to prevent formation of a seal between the top and bottom of the plate during incubation. Storage Instructions: On receipt, store plates in the dark at 2–8 °C. Avoid freezing and overheating. Do not open until ready to use.

Waste Disposal

After interpretation all plates should be destroyed by standard incineration methods.

Performance Testing Results:

GPT: inoculum 10-100 cfu.

Inhibitory properties: inoculum 10000 cfu.

TEST	ATCC	Incubation Temp. (°C)	Incubation Cond.	Reaction 1	
<i>Enterococcus faecalis</i>	19433	41-43 °C	Aerobic, 24 hours	Growth	Blue
<i>Enterococcus faecium</i>	19434	41-43 °C	Aerobic, 24 hours	Growth	Blue
<i>Escherichia coli</i>	25922	41-43 °C	Aerobic, 24 hours	Partially inhibited	