

# mEI (membrane Enterococcus Indoxyl-β-D-Glucoside) Agar



Medium used for the isolation and identification of Enterococci in water by the membrane filter method.

## • CONTENTS (Liter)

Peptone	10.0 g
Yeast Extract	30.0g
Sodium Chloride	15.0 g
Esculine	1.0 g
Indoxyl-β-D-Glucoside	0.75 g
Sodium Azide	0.15 g
Cycloheximide	0.05 g
Agar	15.0 g
Final pH = 7.1 ± 0.2 at 25°C	

## • PROCEDURE

Suspend 71.95 G of powder in 1 L of distilled or deionized water. Heat to boiling until completely dissolved. Sterilize by autoclave at 121°C for 15 minutes. Cool to 45-50°C in water bath. Add 2 vials of Nalidixic Acid solution (MB-N3048). Mix well. Pour into petri dishes. If necessary, add 2 mL of TTC 1% supplement (MB-T1867).

### Nalidixic Acid solution

1vial contents (each vial is sufficient for 500mL of medium)

Nalidixic Acid	0.12 g
----------------	--------

### TTC 1% supplement

1vial contents (each vial is sufficient for 500mL of medium)

Triphenyltetrazolium Chloride	0.05 g
-------------------------------	--------

## • INTERPRETATION

mEI (membrane Enterococcus Indoxyl-β-D-Glucoside) Agar is a medium used for the isolation and identification of Enterococci in water by the membrane filter method. Peptone provides nitrogen, vitamins, minerals and essential amino acids for growth. Yeast extract provides trace elements, vitamins and amino acids. Sodium chloride maintains the osmotic balance. Esculin is hydrolyzed by Enterococci to form esculetin. Indoxyl-β-D-glucoside is the substrate of the glucosidase-positive Enterococci. Sodium azide inhibits Gram-negative bacteria and cycloheximide inhibits most fungi. Agar is a solidifying agent.

## • TECHNIC

Inoculate the specimen using a sterile loop to the medium or using by the membrane filter method. Incubate at 41 ± 0.5°C for 24 ± 2 hours. Refer appropriate references for recommended test procedure.

## • QUALITY CONTROL FOR USE

### Dehydrated medium

Appearance: free-flowing, homogeneous

Color: light beige

### Prepared medium

Appearance: slightly opalescent

Color: medium amber

Incubation conditions: 41 ± 0.5°C / 24 ± 2 hours

Microorganism	ATCC	Inoculum CFU	Growth	Characteristics
<i>Enterococcus faecalis</i>	29212	50-100	good	blue halo
<i>Escherichia coli</i>	25923	≥10 <sup>3</sup>	inhibited	-

## • STORE

The powder is very hygroscopic. Store the powder at room temperature, in a dry environment, in its original container tightly closed and use it before the expiry date on the label. Store prepared medium at 2 - 8°C.

## • REFERENCES

1. U.S. Environmental Protection Agency, 1997. Method 1600: Membrane filter test method for enterococci in water. Publication EPA-821-R-97-004a. Office of Water, USEPA, Washington, D.C.
2. U.S. Environmental Protection Agency. 2000. Improved enumeration methods for the recreational water quality indicators: enterococci and Escherichia coli. Publication EPA/821/R-97/004. Office of Science and Technology, USEPA, Washington, D.C.
3. U.S. Environmental Protection Agency. 1986. Bacteriological ambient water quality criteria: availability. FED. Reg. 51(45):8012.
4. Clesceri, Greenberg and Eaton (ed.). 1998. Standard methods for the examination of water and wastewater, 20th ed. American Public Health Association, Washington, D.C.

## • PACKAGE

Cat. No : MB-E0794 mEI (membrane Enterococcus Indoxyl- $\beta$ -D-Glucoside) Agar	500 G
--	-------