

# m-ENDO BROTH

Selective medium for coliforms enumeration in water by the membrane filter method.

TYPICAL FORMULA	(g/l)
Tryptose	10.0
Peptone	5.0
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Yeast Extract	1.5
Lactose	12.5
Sodium Chloride	5.0
Dipotassium Hydrogen Phosphate	4.375
Potassium Dihydrogen Phosphate	1.375
Sodium Sulphite	2.1
Sodium Desoxycholate	0.1
Sodium Lauryl Sulphate	0.05
Basic Fuchsin	1.05
Final pH = $7.2 \pm 0.2$ at 25 °C.	

### **DIRECTIONS**

Suspend 48.1 g of powder in 1 liter of distilled or deionized water. Add 20 ml of ethyl alcohol 95%.

Dispense into final containers. Heat to boiling with frequent and careful overturnings until complete dissolution.

Avoid overheating and do not autoclave.

#### DESCRIPTION

m-ENDO BROTH is a selective medium for the enumeration of coliforms in water by the membrane filter method.

### **TECHNIQUE**

Place a membrane filter absorbent pad inside a sterile 60 mm Petri dish.

Add 1.8-2.0 ml of m-ENDO BROTH to each pad.

Filter the water sample through a membrane filter.

Place filter top side up on the pad using rolling motion to avoid entrapping air bubbles.

Incubate at 36  $\pm$  1 °C for 24  $\pm$  2 hours.

Coliforms grow turning the medium purple, with or without a metallic sheen.

## **QUALITY CONTROL**

**Dehydrated medium** 

Appearance: free-flowing, homogeneous.

Color: pinkish purple. Prepared medium

Appearance: opalescent with precipitates.

Color: pinkish-red.

Incubation conditions:  $36 \pm 1$  °C for  $24 \pm 2$  hours.

Microorganism	ATCC	Growth	Characteristics
Staphylococcus aureus	25923	markedly to completely inhibited	
Escherichia coli	25922	good	red colonies w / green metallic sheen
Salmonella typhimurium	14028	good	colorless to pink

# PERFORMANCE AND LIMITATIONS

Preliminary enrichment of the specimens is unnecessary in the case of non-drinking water and wastewater.

In the case of drinking water, preliminary enrichments of the specimens gives excellent results, although it is not indispensable for the routine examinations. For correct specimen enrichment procedure see quoted literature.

Occasionally non-coliform organisms may produce typical sheen colonies.

Coliform organisms may also occasionally produce atypical colonies (dark red or nucleated colonies without sheen). It is advisable to verify both colonies types.



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# STORAGE

The powder is very hygroscopic: store the powder at 10-30 °C, in a dry environment, in its original container tightly closed and use it before the expiry date on the label or until signs of deterioration or contamination are evident.

The medium should be used the day it is prepared: if it is necessary store in the dark at 2-8 °C for no more than 3 days.

# **REFERENCES**

- 1. Fifield, Schaufus (1958). J. Amer. Water works assoc. 50:193.
- 2. Eaton, Clesceri, Greenberg. (1995). Standard methods for the examination of water and wastewater, 19th ed.
- 3. APHA (1985). Standard Methods for the examination of water and wastewater, 16th ed.

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Product	REF	$\sum$
m-ENDO BROTH (10.3 l)	610220	500 g
m-ENDO BROTH (2.0 I)	620220	100 g

# **TABLE OF SYMBOLS**

LOT Batch code	Caution, consult accompanying documents	Manufacturer	Contains sufficient for <n> tests</n>	Keep away from heat source
REF Catalogue number	Fragile, handle with care	Use by	Temperature limitation	