

EMB (Eosin Methylene Blue) Agar



Selective medium used for the isolation of gram-negative enteric bacteria.

*Equally use with MFDS (MB-E2165K) and QIA (MB-E2165Q).

• CONTENTS (Liter)

Peptone	10.0 g
Lactose	5.0 g
Sucrose	5.0 g
Dipotassium Phosphate	2.0 g
Eosin Y	0.4 g
Methylene Blue	0.065 g
Agar	13.5 g

Final pH = 6.8 ± 0.2 at 25°C.

• PROCEDURE

Suspend 35.97 G of powder in 1L of distilled or deionized water. Heat to boiling until completely dissolve. Sterilize by autoclave at 121°C for 15 minutes. Cool to 45-50°C in water bath. Mix well. Dispense in petri dishes.

• INTERPRETATION

EMB (Eosin Methylene Blue) Agar is a selective medium used for the isolation of gram-negative enteric bacteria. Peptone provides carbon, nitrogen, vitamins and minerals. Lactose is the fermentable carbohydrate. Sucrose is added to the medium as an alternative carbohydrate source for lactose-fermenting, gram-negative bacilli. Dipotassium phosphate is used as a buffering agent. Eosin-Y and methylene blue serve as differential indicators. Agar is the solidifying agent.

• TECHNIC

Inoculate the plates with spreading the specimen on surface of the medium using a sterile loop. Incubate at 36 ± 1°C for 24 ± 2 hours. Refer appropriate references for recommended test procedure.

• QUALITY CONTROL FOR USE

Dehydrated medium

Appearance: free-flowing, homogeneous.

Color: pink-purple.

Prepared medium

Appearance : opalescent.

Color: purple with a green-orange cast.

Incubation conditions: 36 ± 1 °C / 24 ± 2 hours

Microorganism	ATCC	Inoculum CFU	Growth	Characteristics
<i>Enterococcus faecalis</i>	29212	≥10 ³	partially inhibited	colorless colonies
<i>Escherichia coli</i>	25922	50 -100	good	blue black colonies/ dark center/metallic sheen
<i>Salmonella typhimurium</i>	14028	50 – 100	good	colorless colonies

• 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 or until signs of deterioration are evident. Store prepared medium at 2-8°C.

• REFERENCES

1. Levine, M.M., (1918). Differentiation of *E. coli* and *B. aerogenes* on a simplified Eosin-Methylene Blue Agar. J. Infect. Dis. 23:43.
2. Holt-Harris, J.E., and O. Teague. (1916). A new culture medium for isolation of *Bacillus typhosa* from stools. J. Infect. Dis. 18:596-600.
3. Refer to the MFDS and the QIA.

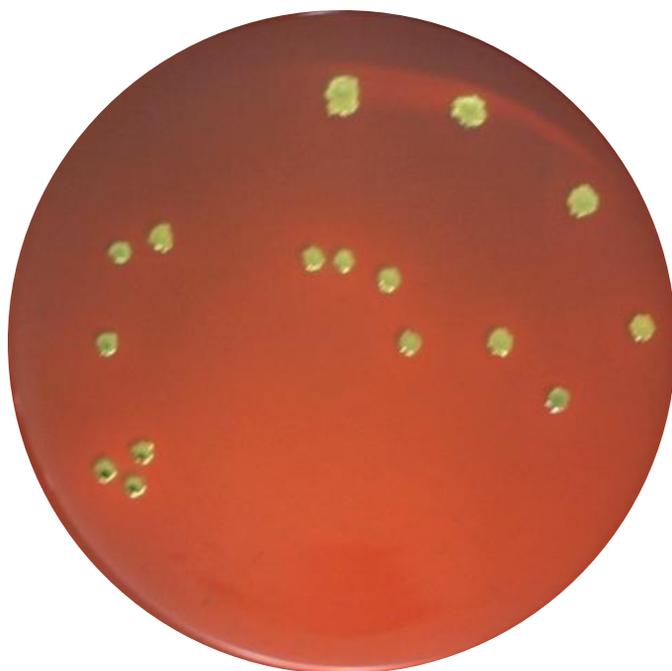
• PACKAGE

Cat. No : MB-E2165 EMB (Eosin Methylene Blue) Agar	500 G
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• MICROBIAL CULTURE IMAGES



None



Escherichia coli ATCC 25922

Incubation conditions : 36±1°C 24h



Salmonella Typhimurium ATCC 14028



Enterococcus Faecalis ATCC 29212

Incubation conditions : 36 ± 1 °C 24h