

E.M.B. LEVINE AGAR

Selective medium for isolation of enteric Gram Negative bacteria.

TYPICAL FORMULA (g/l)

| | |
|---------------------|-------|
| Peptone | 10.0 |
| Lactose | 10.0 |
| Potassium phosphate | 2.0 |
| Eosine Y | 0.4 |
| Methylene blue | 0.065 |
| Agar | 14.0 |
| pH = 7,1 ± 0,2 | |

DESCRIPTION

E.M.B. LEVINE AGAR is a selective medium for isolation of enteric Gram Negative bacteria.

PRINCIPLE

Eosin and methylene blue, contained in the medium, inhibit the growth of Gram positive bacteria. The good correlation between the two dyes permits to discriminate between *Enterobacteriaceae* lactose fermenting and non fermenting on the basis of microorganism ability to adsorb dye.

PREPARATION

Melt the content of the bottle in a boiling water-bath at 100°C (loosing the caps partially unscrewed) until completely dissolved. Cool to 45-50°C, mix well avoiding the formation of bubbles and aseptically distribute into Petri dishes. Allow the medium to solidify. Store the plates in tightly closed containers.

TECHNIQUE

Inoculate the faecal sample or rectal swab onto a small area of a plate and streak for isolation. Incubate at 36±1°C for 18-24 hours and examine colonies with morphology associate to potential pathogens.

INTERPRETATION of RESULTS

The coliforms, lactose-fermenting microorganisms, cultivate with blue/black colonies with a black centre and a metallic sheen ; other coliforms, as *Enterobacter*, cultivate with pink and mucoid colonies. *Salmonella* and *Shigella*, non lactose fermenting, appear colorless, transparent or amber colour. Strains as *Enterococcus faecalis* are partly inhibited and appear as colorless colonies.

STORAGE

10-25°C away from light, until the expiry date on the label or until signs of deterioration or contamination are evident.

WARNING and PRECAUTIONS

The product is not classified as hazardous by current legislation. It is nevertheless recommended that the Safety Data Sheet be consulted on its correct use. The product is designed for *In vitro* diagnostic use and must be used only by properly trained operators.

DISPOSAL of WASTE

Disposal of waste must be carried out according to national and local regulations in force.

REFERENCES

- Levine, M.M., (1918). Differentiation of *E. coli* and *B. aerogenes* on a simplified Eosin-Methylene Blue Agar. J. Infect. Dis. **23**:43.
- 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.



Liofilchem s.r.l.

Via Scozia, Zona industriale - 64026 Roseto degli Abruzzi (Te) Italy - Tel. +39.0858930745 - Fax +39.0858930330
Web site: <http://www.liofilchem.net> - E-mail: liofilchem@liofilchem.net

PRODUCT SPECIFICATIONS

NAME

E.M.B. LEVINE AGAR

PRESENTATION

Glass bottles containing 100 ml of medium.

STORAGE

10-25°C

PACKAGING

| Code | Content | Packaging |
|--------|--------------------|----------------------------|
| 402350 | 6 bottles x 100 ml | 6 bottles in cardboard box |

pH OF THE MEDIUM

7,1 +/- 0,2

USE

E.M.B. LEVINE AGAR is a selective medium for isolation of enteric Gram Negative bacteria.

TECHNIQUE

Refer to technical sheet of the product.

APPEARANCE of the MEDIUM

Purple Medium, slightly opalescent with precipitate orange-greenish colour..

SHELF LIFE

2 years.

QUALITY CONTROL

- Control of general characteristics, label and print
- Sterility control
7 days at 25 ± 1°C, in aerobiosis
7 days at 36 ± 1°C, in aerobiosis
- Microbiological control
Inoculum for productivity: 10-100 UFC/ml
Inoculum for selectivity: 10⁴-10⁵ UFC/ml
Inoculum for specificity: ≤ 10⁴ UFC/ml
Incubation conditions: 18-24 h at 36 ± 1°C

| Microorganism | ATCC | Growth | Characteristics |
|-------------------------------|-------|--------------------|--|
| <i>Enterococcus faecalis</i> | 19433 | Partial inhibition | Colorless colonies |
| <i>Escherichia coli</i> | 25922 | Good | Blue /black colonies with black centres and metallic sheen |
| <i>Salmonella typhimurium</i> | 14028 | Good | Colorless colonies |

TABLE OF SYMBOLS

| | | | | |
|---|---|--|---|--|
|  IVD In Vitro Diagnostic Medical Device |  Do not reuse |  Manufacturer |  Contains sufficient for <n> tests |  Temperature limitation |
|  REF Catalogue number |  Fragile, handle with care |  Use by |  Caution, consult accompanying documents |  LOT Batch code |



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