

CM 20657 – ENDO DEV AGAR

INTENDED USE

For isolation and differentiation of Escherichia coli in the bacteriological analysis of water.

PRODUCT SUMMARY AND EXPLANATION

Endo Agar was developed by Endo to differentiate gram-negative bacteria on the basis of lactose fermentation, while inhibiting gram-positive bacteria. Endo DEV Agar is the modification of Endo Agar according to the German legislation, to obtain a better detection of damaged coliforms. The agar concentration in Endo DEV Agar has been increased to maintain the strength of the medium after the water sample is incorporated. Also the buffering system is removed from this formulation. It includes more rich nutrient base and sodium chloride to restore the osmotic balance.

COMPOSITION

| Ingredients | Gms / Ltr |
|-----------------|-----------|
| Lactose | 10.000 |
| Meat peptone | 10.000 |
| Meat extract | 10.000 |
| Sodium chloride | 5.000 |
| Sodium sulphite | 2.500 |
| Basic fuchsin | 0.500 |
| Agar | 20.000 |

PRINCIPLE

The medium consists of meat peptone and meat extract, which provide nitrogen, carbon, vitamins and minerals required for bacterial growth. Sodium sulphite and basic fuchsin make this medium selective by suppressing gram-positive organisms. Coliforms produce pink colonies on fermenting lactose while lactose non-fermenters produce colourless colonies on the medium. With Escherichia coli, this reaction is very pronounced as the fuchsin crystallizes, exhibiting a permanent greenish metallic luster (fuchsin luster) to the colonies. Medium should be stored away from light to avoid photo-oxidation.

INSTRUCTION FOR USE

Dissolve 58.0 grams in 1000 ml purified / distilled water.

Heat to boiling to dissolve the medium completely.

Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.

Mix well before pouring into sterile Petri plates.

If the solidified culture medium is somewhat too red, then to remove the colour, add a few drops (max. 1 ml/litre) of a freshly prepared 10% Sodium sulphite solution and boil.

Caution: Basic fuchsin is a potential carcinogen and care should be taken to avoid inhalation of the powdered dye and contamination of the skin.

QUALITY CONTROL SPECIFICATIONS



| | |
|-------------------------------|---|
| Appearance of Powder | : Light pink to purple homogeneous free flowing powder. |
| Appearance of prepared medium | : Orangish pink coloured, clear to slightly opalescent gel with fine precipitate forms in Petri plates. |
| pH (at 25°C) | : 7.4 ± 0.2 |

INTERPRETATION

Cultural characteristics observed after incubation.

| Microorganism | ATCC | Inoculum (CFU/ml) | Growth | Recovery | Colour of colony | Incubation Temperature | Incubation Period |
|-------------------------------------|-------|-------------------|----------------|-------------|--------------------------------------|------------------------|-------------------|
| Bacillus subtilis subsp. spizizenii | 6633 | $\geq 10^3$ | Inhibited | 0% | - | 35-37°C | 18-24 Hours |
| Klebsiella aerogenes | 13048 | 50-100 | Good-luxuriant | $\geq 50\%$ | Pink | 35-37°C | 18-24 Hours |
| Enterococcus faecalis | 29212 | 50-100 | None-poor | $\leq 10\%$ | Pink, small | 35-37°C | 18-24 Hours |
| Escherichia coli | 25922 | 50-100 | Good-luxuriant | $\geq 50\%$ | pink to rose red with metallic sheen | 35-37°C | 18-24 Hours |
| Klebsiella pneumoniae | 13883 | 50-100 | Good-luxuriant | $\geq 50\%$ | Pink, mucoid | 35-37°C | 18-24 Hours |
| Proteus vulgaris | 13315 | 50-100 | Good-luxuriant | $\geq 50\%$ | Colourless to pale pink | 35-37°C | 18-24 Hours |
| Pseudomonas aeruginosa | 27853 | 50-100 | Good-luxuriant | $\geq 50\%$ | Colourless, irregular | 35-37°C | 18-24 Hours |
| Salmonella Typhi | 6539 | 50-100 | Good-luxuriant | $\geq 50\%$ | Colourless to pale pink | 35-37°C | 18-24 Hours |
| Shigella sonnei | 25931 | 50-100 | Good-luxuriant | $\geq 50\%$ | Colourless to pale pink | 35-37°C | 18-24 Hours |
| Staphylococcus aureus subsp. aureus | 25923 | $\geq 10^3$ | Inhibited | 0% | - | 35-37°C | 18-24 Hours |



| | | | | | | | |
|------------------------|-------|--------|----------------|--------|------------|---------|-------------|
| Enterobacter cloacae | 13047 | 50-100 | Good | 40-50% | Pink | 35-37°C | 18-24 Hours |
| Salmonella Typhimurium | 14028 | 50-100 | Good-luxuriant | >=50% | Colourless | 35-37°C | 18-24 Hours |
| Salmonella Enteritidis | 13076 | 50-100 | Good-luxuriant | >=50% | Colourless | 35-37°C | 18-24 Hours |
| Shigella flexneri | 12022 | 50-100 | Good-luxuriant | >=50% | Colourless | 35-37°C | 18-24 Hours |

PACKAGING:

Inpacksizeof500 gm bottles.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.













Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

Afteruse,prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES

1.Endo,1904,Zentralbl. Bakteriол., Abt. I. Orig., 35:109.

| | | | | | |
|--|---|--|---|--|---|
|  GMP Good Manufacturing Practices Certified |  IVD For In Vitro Diagnostic Use |  QTY. Quantity |  LOT/ B. NO. Lot / Batch Number |  REF Catalogue Number |  Manufacturer |
|  Temperature Unit |  EC REP Authorized Representative <small>MedNet GmbH Barkstrasse 10, 48163 Maaenke, Germany</small> |  European Conformity |  QR Code |  Consults Instructions for Use |  Best Before |

NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

*For LabUse Only

