

## TM 1533 – 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
<i>Bacillus subtilis subsp. spizizenii</i>	6633	$\geq 10^3$	Inhibited	0%	-	35-37°C	18-24 Hours
<i>Klebsiella aerogenes</i>	13048	50-100	Good-luxuriant	$\geq 50\%$	Pink	35-37°C	18-24 Hours
<i>Enterococcus faecalis</i>	29212	50-100	None-poor	$\leq 10\%$	Pink, small	35-37°C	18-24 Hours
<i>Escherichia coli</i>	25922	50-100	Good-luxuriant	$\geq 50\%$	pink to rose red with metallic sheen	35-37°C	18-24 Hours
<i>Klebsiella pneumoniae</i>	13883	50-100	Good-luxuriant	$\geq 50\%$	Pink, mucoid	35-37°C	18-24 Hours
<i>Proteus vulgaris</i>	13315	50-100	Good-luxuriant	$\geq 50\%$	Colourless to pale pink	35-37°C	18-24 Hours
<i>Pseudomonas aeruginosa</i>	27853	50-100	Good-luxuriant	$\geq 50\%$	Colourless, irregular	35-37°C	18-24 Hours
<i>Salmonella Typhi</i>	6539	50-100	Good-luxuriant	$\geq 50\%$	Colourless to pale pink	35-37°C	18-24 Hours
<i>Shigella sonnei</i>	25931	50-100	Good-luxuriant	$\geq 50\%$	Colourless to pale pink	35-37°C	18-24 Hours
<i>Staphylococcus aureus subsp. aureus</i>	25923	$\geq 10^3$	Inhibited	0%	-	35-37°C	18-24 Hours

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

#### PACKAGING:

In pack size of 500 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

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

#### REFERENCES

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

 Good Manufacturing Practices Certified	 For In Vitro Diagnostic Use	 Quantity	 Lot / Batch Number	 Catalogue Number	 Manufacturer
 Temperature Unit	 Authorized Representative MedNet GmbH Buckstrasse 10, 49163 Muenster, Germany	 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 Lab Use Only**

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