

## Technical Information

### Endo MiVeg Agar w/ NaCl

**Product Code : VM2258**

**Application:-** Endo MiVeg Agar with NaCl is used for detection and isolation of pathogenic enteric bacilli.

### Composition\*\*

Ingredients	Gms / Litre
MiVeg special peptone	8.0
Lactose	10.0
Sodium chloride	3.0
Dipotassium phosphate	2.0
Sodium sulphite	2.5
Basic fuchsin	0.2
Agar	12.0
Final pH (at 25°C )	7.5 ± 0.2

\*\* Formula adjusted, standardized to suit performance parameters

### Principle & Interpretation

This medium is prepared by adding MiVeg special peptone to the medium thus making it free from BSE/TSE risks associated with animal based peptone. Endo MiVeg Agar with NaCl is the modification of Endo Agar with NaCl which is prescribed in the regulations for the execution of the German Meat Inspection Law (2), which is modified form of Endo Agar which was proposed by Endo (1) as a selective medium for detection of pathogenic enteric bacilli.

Sodium sulphite and Basic fuchsin inhibits most of the gram-positive bacteria. Lactose fermenting *Escherichia coli* and coliforms produce aldehyde and acid. The aldehyde liberates fuchsin from the fuchsin-sulphite complex and colonies of lactose fermenters appear dark red. Non-lactose fermenters show colourless colonies. MiVeg special peptone provides nitrogen source and other essential nutrients to the organism. Sodium chloride maintain the osmotic balance of the medium.

### Methodology

Suspend 37.7 grams of powder media in 1000 ml distilled water. Mix thoroughly. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. 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

#### Physical Appearance

Light purple coloured, homogeneous, free flowing powder that may contain a large amount of minute to small dark particles.

#### Gelling

Firm, comparable with 1.2% Agar gel.

#### Colour and Clarity of prepared medium

Orangish pink coloured, clear to slightly opalescent gel with fine precipitate forms in petri plates.

#### Reaction

Reaction of 3.77% w/v aqueous solution is pH 7.5 ± 0.2°C at 25°C.

#### pH range

7.3-7.7

### Cultural Response/Characteristics

Cultural characteristics observed after an incubation at 35 - 37°C for 24 hours.

Organisms (ATCC)	Inoculum (CFU)	Growth	Recovery at 35-37°C	Recovery at 44-45°C
<i>Enterobacter aerogenes</i> (13048)	10 <sup>2</sup> -10 <sup>3</sup>	luxuriant	>50%	Red
<i>Enterococcus faecalis</i> (29212)	10 <sup>2</sup> -10 <sup>3</sup>	fair	>50%	colourless-light pink
<i>Escherichia coli</i> (25922)	10 <sup>2</sup> -10 <sup>3</sup>	luxuriant	>50%	Red w/metallic sheen
<i>Salmonella</i> serotype Typhimurium (14028)	10 <sup>2</sup> -10 <sup>3</sup>	luxuriant	>50%	colourless
<i>Salmonella</i> serotype Enteritidis (13076)	10 <sup>2</sup> -10 <sup>3</sup>	luxuriant	>50%	colourless
<i>Shigella flexneri</i> (12022)	10 <sup>2</sup> -10 <sup>3</sup>	luxuriant	>50%	colourless

### Storage and Shelf Life

**Dried Media:** Store below 30°C in tightly closed container and use before expiry date as mentioned on the label.

**Prepared Media:** 2-8° in sealable plastic bags for 2-5 days.



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*Escherichia coli*

### Further Reading

1. Endo S., 1904, Centralbl. Bakt. I. Orig., 35:109.
2. Deutsches Fleischbeschauengesetz: Anlage Zu § 20 Abs, 4: Vorschriften über die bakteriologische Fleischuntersuchung.

### Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
- The product conform solely to the technical information provided in this booklet and to the best of knowledge research and development work carried at **CDH** is true and accurate
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