

Endo HiVeg™ Agar w/ NaCl

MV1258

Endo HiVeg Agar with NaCl is used for detection and isolation of pathogenic enteric bacilli.

Composition ** :

Ingredients	Grams/Litre
HiVeg 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.

Directions :

Suspend 37.7 grams in 1000 ml distilled water. 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.

Principle and Interpretation :

This medium is prepared by using HiVeg special peptone which is free from BSE/TSE risks associated with animal based peptone. Endo HiVeg 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. HiVeg special peptone provides nitrogen source and other essential nutrients. Sodium chloride maintain the osmotic balance of the medium.

Quality Control :**Appearance of powder**

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

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

Product Profile :

Vegetable based (Code MV)©	Animal based (Code M)
MV1258 HiVeg special peptone	M1258 Peptone special

Recommended for : Detection and isolation of pathogenic enteric bacilli

Reconstitution : 37.7 g/l

Quantity on preparation (500g) : 13.26 L

pH (25°C) : 7.5 ± 0.2

Supplement : None

Sterilization : 121°C / 15 minutes.

Storage : Dry Medium - Below 30°C, Prepared Medium 2 - 8°C.

Reaction

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

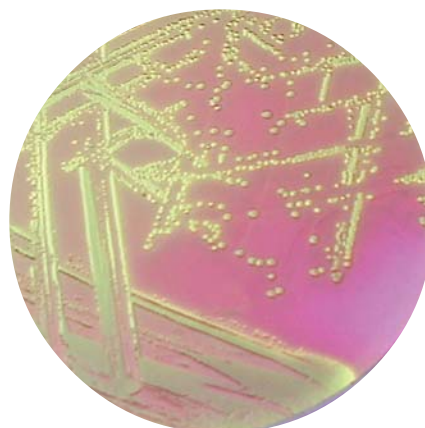
Cultural Response

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

Organisms (ATCC)	Inoculum (CFU)	Growth	Recovery	Colour of colony
<i>Enterobacter aerogenes</i> (13048)	10 ² -10 ³	luxuriant	>50%	red
<i>Enterococcus faecalis</i> (29212)	10 ² -10 ³	fair	>30%	colourless-light pink
<i>Escherichia coli</i> (25922)	10 ² -10 ³	luxuriant	>50%	redw/metallic sheen
<i>Salmonella</i> serotype Typhimurium (14028)	10 ² -10 ³	luxuriant	>50%	colourless
<i>Salmonella</i> serotype Enteritidis (13076)	10 ² -10 ³	luxuriant	>50%	colourless
<i>Shigella flexneri</i> (12022)	10 ² -10 ³	luxuriant	>50%	colourless

References :

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



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Escherichia coli