

Litmus Lactose HiVeg™ Agar

MV507

Litmus Lactose HiVeg Agar is used for isolation of enteric bacteria.

Composition ** :

Ingredients	Grams/Litre
HiVeg peptone	23.0
Synthetic detergent No. V	2.0
HiVeg extract	5.0
Sodium chloride	5.0
Lactose	20.0
Litmus	0.5
Agar	15.0

Final pH (at 25°C) 7.4 ± 0.2

** Formula adjusted, standardized to suit performance parameters.

Directions :

Suspend 70.5 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.

Principle and Interpretation :

This medium is prepared by completely replacing animal based peptones with vegetable peptones, which make the medium free of BSE/TSE risks. Litmus Lactose HiVeg Agar is the modification of Litmus Lactose Bile Salt Agar formulated by Wurtz (1) for the isolation of enteric bacteria. It can be successfully used in place of MacConkey HiVeg Agar as it efficiently serves the purpose of MacConkey HiVeg Agar. The Litmus Lactose HiVeg Agar contains synthetic detergent No. V which inhibits the growth of gram-positive microorganisms. Lactose fermenting coliform enteric bacteria produce acid. Litmus an amphoteric dye, turns red at acidic pH. HiVeg peptone and HiVeg extract supply the essential nutrients like nitrogen compounds for the growth of enteric bacteria. Sodium chloride maintains the osmotic balance of the medium

Quality Control :

Appearance of powder

Light purple coloured, homogeneous free flowing powder.

Gelling

Firm, comparable with 1.5% Agar gel.

Colour and Clarity

Light purple coloured slightly opalescent gel forms in petri plates may have black particles

Reaction

Reaction of 7.05% w/v aqueous solution is pH 7.4 ± 0.2 at 25°C.

Product Profile :

Vegetable based (Code MV)Ⓞ	Animal based (Code M)
MV507 HiVeg peptone Synthetic detergent No. V HiVeg extract	M507 Peptic digest of animal tissue Sodium taurocholate Beef extract

Recommended for : Isolation of enteric bacteria.

Reconstitution : 70.5 g/l

Quantity on preparation (500g) : 7.09 L

pH (25°C) : 7.4 ± 0.2

Supplement : None

Sterilization : 121°C / 15 minutes.

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

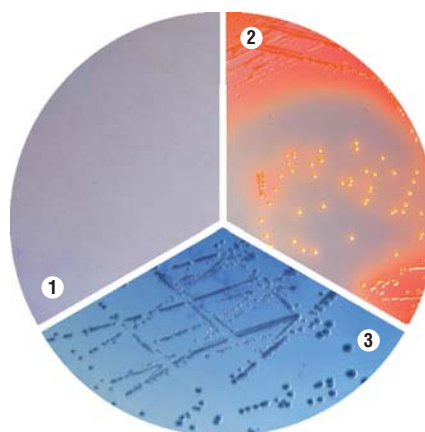
Cultural Response

Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.

Organisms (ATCC)	Inoculum (CFU)	Growth	Recovery
<i>Enterococcus faecalis</i> (29212)	10 ² -10 ³	inhibited	0%
<i>Escherichia coli</i> (25922)	10 ² -10 ³	luxuriant	>50%
<i>Proteus mirabilis</i> (25933)	10 ² -10 ³	luxuriant (no swarming)	>50%
<i>Pseudomonas aeruginosa</i> (27853)	10 ² -10 ³	luxuriant	>50%
<i>Salmonella</i> serotype Typhi (6539)	10 ² -10 ³	luxuriant	>50%
<i>Salmonella</i> serotype Typhimurium (14028)	10 ² -10 ³	luxuriant	>50%
<i>Shigella flexneri</i> (12022)	10 ² -10 ³	luxuriant	>50%
<i>Staphylococcus aureus</i> (25923)	10 ² -10 ³	inhibited	0%

References :

1. Wurtz, 1897, Technique Bacteriologique Paris, Masson.



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1. Control
2. *Escherichia coli*
3. *Proteus mirabilis*