

**Deoxycholate Lactose HiVeg™ Agar****MV066**

Deoxycholate Lactose HiVeg Agar is a differential and slightly selective medium used for the isolation and enumeration of coliforms in water, waste water, milk and dairy products.

**Composition\*\* :**

Ingredients	Grams/Litre
HiVeg special peptone	10.0
Lactose	10.0
Sodium chloride	5.0
Sodium citrate	2.0
Synthetic detergent No. III	0.5
Neutral red	0.03
Agar	15.0

Final pH (at 25°C) 7.1 ± 0.2

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

**Directions :**

Suspend 42.5 grams in 1000 ml distilled water. Mix well and heat to boiling to dissolve the medium completely. The medium requires no autoclaving if it is to be used at once. If the medium is to be stored, it should be sterilized at 15 lbs pressure (121°C) for 15 minutes. AVOID OVERHEATING.

**Principle and Interpretation :**

This medium is prepared by using vegetable peptones in place of animal based peptones that makes the medium free of BSE/TSE risks. This is the modification of Leifson (1) and prepared according to the formula in Standard Methods for Examination of Dairy Products (2) and Water and Wastewater (3) and food (4) for the detection of coliform bacilli.

This medium is selective against gram positive organisms which are inhibited by optimum concentration of synthetic detergent No. III and sodium citrate in the medium. It helps in differentiating between lactose fermenting and non lactose fermenting enteric bacilli. The lactose fermenters utilize lactose and produce acid which is indicated by pH indicator, neutral red. Lactose fermenters show pink coloured colony, while the lactose non fermenters form colourless colonies.

**Quality Control :****Appearance of powder**

Light pink coloured, homogeneous, free flowing powder.

**Gelling**

Firm, comparable with 1.5% Agar gel.

**Product Profile :**

Vegetable based (Code MV)®	Animal based (Code M)
<b>MV066</b> HiVeg special peptone Synthetic detergent No. III	<b>M066</b> Peptone Special Sodium deoxycholate

**Recommended for** : Isolation and enumeration of coliforms in water, waste water, milk and dairy products.

**Reconstitution** : 42.5 g/l

**Quantity on preparation (500g):** 11.76 L

**(100g):** 2.35 L

**pH (25°C)** : 7.1 ± 0.2

**Supplement** : None

**Sterilization** : Boiling or 121°C / 15 minutes.

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

**Colour and Clarity**

Reddish orange coloured, clear to slightly opalescent gel forms in petri plates.

**Reaction**

Reaction of 4.25% w/v aqueous solution is pH 7.1 ± 0.2 at 25°C.

**Cultural Response**

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

Organisms (ATCC)	Inoculum (CFU)	Growth	Colour of Colony
<i>Bacillus subtilis</i> (6633)	10 <sup>2</sup> -10 <sup>3</sup>	inhibited	-
<i>Ent. aerogenes</i> (13048)	10 <sup>2</sup> -10 <sup>3</sup>	good - luxuriant	pink
<i>Enterococcus faecalis</i> (29212)	10 <sup>2</sup> -10 <sup>3</sup>	inhibited	-
<i>Escherichia coli</i> (25922)	10 <sup>2</sup> -10 <sup>3</sup>	good - luxuriant	pink
<i>S. serotype Typhimurium</i> (14028)	10 <sup>2</sup> -10 <sup>2</sup>	good - luxuriant	colourless

**References :**

- Leifson, 1935, J. Path. Bact., 40:581.
- Richardson (Ed.), 1985, Standard Methods for the Examination of Dairy Products, 15<sup>th</sup> ed., APHA, Washington, D.C.
- Greenberg A. E., Trussell R. R. and Clesceri L. S. (Eds.) 1985, Standard Methods for the Examination of Water and Wastewater, 16<sup>th</sup> ed., APHA, Washington, D.C.
- Speck M. (Ed.), 1984, Compendium of Methods for the Microbiological Examination of Foods, 2<sup>nd</sup> ed., APHA, Washington, D.C.