

**D.C.L.S. HiVeg™ Agar**

**MV160**

D.C.L.S. HiVeg Agar is used as a selective medium for the isolation of *Shigella* and *Salmonella*. Also useful for isolation of *Vibrio cholerae*.

**Composition \*\* :**

Ingredients	Grams/Litre
HiVeg peptone No. 3	8.0
HiVeg extract	3.0
Lactose	5.0
Sucrose	5.0
Sodium citrate	10.0
Sodium thiosulphate	5.0
Synthetic detergent No. III	1.5
Neutral red	0.03
Agar	12.0

Final pH (at 25°C ) 7.2 ± 0.2

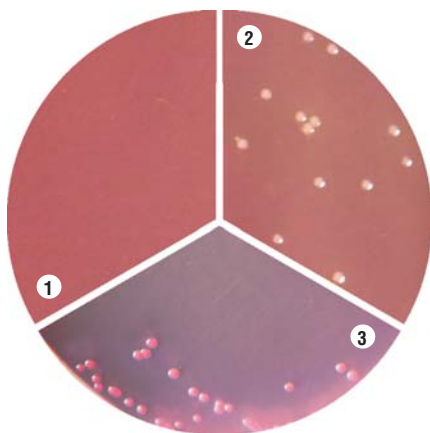
\*\* Formula adjusted, standardized to suit performance parameters.

**Directions :**

Suspend 49.5 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. DO NOT AUTOCLAVE. Cool to 50°C and pour about 20 ml of medium into standard petri plates and allow to dry for about two hours with covers partially removed.

**Principle and Interpretation :**

This medium is prepared by completely replacing animal based peptones by vegetable peptones which are free from BSE/TSE risks. D.C.L.S. HiVeg Agar is a modification of Deoxycholate Citrate Agar of Leifson (1). The addition of sucrose to this medium increases its usefulness because non-pathogenic sucrose fermenting organisms like *Proteus*, *Enterobacter*, *Klebsiella* form red colonies. D.C.L.S. HiVeg Agar is a moderately selective culture medium which also supports the growth of *Vibrio* species. This medium contains HiVeg peptone No. 3, HiVeg extract, which provides essential growth nutrients. Sodium citrate and synthetic detergent No.III inhibit coliforms and gram-positive bacteria respectively. Sucrose and lactose are the fermentable



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1. Control
2. *Salmonella* serotype Typhimurium
3. *Escherichia coli*

**Product Profile :**

Vegetable based (Code MV)Ⓞ	Animal based (Code M)
<b>MV160</b> HiVeg peptone No.3 HiVeg extract Synthetic detergent No. III	<b>M160</b> Protease peptone Beef extract Sodium deoxycholate

<b>Recommended for</b>	:	Selective medium for the isolation of <i>Shigella</i> , <i>Salmonella</i> and <i>Vibrio</i>
<b>Reconstitution</b>	:	49.5 g/l
<b>Quantity on preparation (500g)</b>	:	10.1 L
		(100g) : 2.02 L
<b>pH (25°C)</b>	:	7.2 ± 0.2
<b>Supplement</b>	:	None
<b>Sterilization</b>	:	Boiling (DO NOT AUTOCLAVE).
<b>Storage</b>	:	Dry Medium - Below 30°C, Prepared Medium 2 - 8°C.

sugars. The nonfermenters show colourless or nearly colourless colonies. *Shigella sonnei* may form a translucent, pink colony.

D.C.L.S. HiVeg Agar may be inoculated directly from the specimen or inoculated after enrichment in Selenite HiVeg Broth (MV025A) or Tetrathionate HiVeg Broth (MV032). The suspected *Salmonellae*, *Shigellae* colonies are further subcultured on Triple Sugar Iron HiVeg Agar (MV021) for identification.

**Quality Control :**

**Appearance of powder**

Light pink coloured, homogeneous, free flowing powder.

**Gelling**

Firm, comparable with 1.2% Agar gel.

**Colour and Clarity**

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

**Reaction**

Reaction of 4.95% w/v aqueous solution is pH 7.2 ± 0.2 at 25°C.

**Cultural Response**

Cultural characteristics observed after an incubation at 35-37°C for 18 - 48 hours.

Organisms (ATCC)	Inoculum (CFU)	Growth	Recovery	Colour of colony
<i>Enterococcus faecalis</i> (29212)	10 <sup>2</sup> -10 <sup>3</sup>	inhibited	0%	-
<i>Escherichia coli</i> (25922)	10 <sup>2</sup> -10 <sup>3</sup>	none-poor	<10%	red
<i>Proteus vulgaris</i> (13315)	10 <sup>2</sup> -10 <sup>3</sup>	luxuriant	>50%	red
<i>Salmonella</i> serotype Typhimurium (14028)	10 <sup>2</sup> -10 <sup>3</sup>	luxuriant	>50%	colourless-slightly pink
<i>Shigella flexneri</i> (12022)	10 <sup>2</sup> -10 <sup>3</sup>	poor-good	<30%	slightly pink

**References :**

1. Leifson E., 1935, J. Pathol. Bacteriol., 40:581.