Deoxycholate Agar, HiVeg™ MV030

Deoxycholate Agar, HiVeg is used as a differential medium for the direct count of coliforms in dairy products. Also used for the isolation of enteric pathogens from rectal swabs, faeces and other pathological specimens.

Composition ** :

Ingredients	Grams/Litre
HiVeg peptone	10.0
Lactose	10.0
Synthetic detergent No. III	1.0
Sodium chloride	5.0
Dipotassium phosphate	2.0
Ferric citrate	1.0
Sodium citrate	1.0
Neutral red	0.03
Agar	15.0

Final pH (at 25°C) 7.3 ± 0.2
** Formula adjusted, standardized to suit performance parameters.

Directions :

Suspend 45 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. DO NOT AUTOCLAVE. Avoid excessive or prolonged heating during reconsitituion.

Principle and Interpretation :

This medium is prepared by using vegetable peptones in place of animal based peptones which makes the medium free of BSE/TSE risks. Deoxycholate HiVeg Agar is the modification of modified formula of Leifson's medium (1). This medium is used for the isolation and maximum recovery of intestinal pathogens belonging to *Salmonella* and *Shigella* groups. The selectivity of medium permits the use of fairly heavy inocula without danger of overgrowth of *Shigella* and *Salmonella* by other micro-flora.
For the routine examination of stool and urine specimens, it is recommended that other media such as MacConkey HiVeg Agar (MV082), Bismuth Sulphite HiVeg Agar (MV027) etc. be used in conjunction with this medium. It can also be used to streak specimen from Selenite Broth cultures. This is particularly recommended for the detection of *Shigella* and *Salmonella* in the examination of rectal swabs and faeces. These organisms produce colourless colonies on this medium.
On Deoxycholate HiVeg Agar, coliform bacteria and gram-positive bacteria are inhibited or greatly suppressed due to synthetic detergent, sodium citrate and ferric ammonium citrate. Lactose non-fermenters produce colourless colonies. Coliform bacteria, if present form pink colonies on this medium. This medium can be used in the enumeration of coliforms in milk and cream as follows (1): Pipette 1-4 ml of the sample (or decimal dilution of the sample) into a sterile plate and add 10-20 ml Deoxycholate Agar, HiVeg to each plate. Allow the plates to solidify and then overlay with 3-5 ml of uninoculated agar, allow to set and incubate at 30°C for 24 hours. Coliforms form dark red colonies (0.5 mm in diameter).

Product Profile :

Vegetable based (Code MV)◉	Animal based (Code M)
MV030 HiVeg peptone Synthetic detergent No. III	**M030** Peptic digest of animal tissue Sodium deoxycholate

Recommended for	:	Direct count of coliforms in dairy industry and isolation of enteric pathogens.
Reconstitution	:	45.0 g/l
Quantity on preparation (500g)	:	11.11 L
(100g)	:	2.22 L
pH (25°C)	:	7.3 ± 0.2
Supplement	:	None
Sterilization	:	Boiling (DO NOT AUTOCLAVE).

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

Quality Control :

Appearance of powder
Beige to light pink coloured, homogeneous, free flowing powder.
Gelling
Firm, comparable with 1.5% Agar gel.
Colour and Clarity
Reddish orange coloured, clear to very slightly opalescent gel forms in petri plates.
Reaction
Reaction of 4.5% w/v aqueous solution is pH 7.3 ± 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	Recovery	Colour of Colony
Enterococcus faecalis (29212)	10^3-2x10^3	inhibited	0%	-
Escherichia coli (25922)	30-300	good-luxuriant	>50%	pink
Salmonella serotype Enteritidis (13076)	30-300	good-luxuriant	>50%	colourless
Salmonella serotype Typhi (6539)	30-300	good-luxuriant	>50%	colourless
Salmonella serotype Typhimurium (14028)	30-300	good-luxuriant	>50%	colourless
Staphylococcus aureus (25923)	10^3-2x10^3	inhibited	0%	-

References :

1. Standard Methods for the Examination of Dairy Products. 17th Edition, 2004 Edited by H. Michael Wehr and Joseph H.Frank.
2. Leifson, 1935, J. Patho. Bacteriol., 40:581.

◉ Prepared from GMO free Vegetable proteins replacing Animal based peptones. Freedom from BSE/TSE worries.

HIMEDIA®