Lactobacillus Selection HiVeg™ Agar / Broth Base MV1180 / MV1166

Lactobacillus Selection HiVeg Agar / Broth Base is recommended for isolation and enumeration of *Lactobacilli* from foods.

Composition** :

Ingredients	MV1180 Grams/Litre	MV1166 Grams/Litre
HiVeg hydrolysate	10.00	10.00
Yeast extract	5.00	5.00
Dextrose	20.00	20.00
Sodium acetate	25.00	25.00
Monopotassium hydrogen phosphate	6.00	6.00
Ammonium citrate	2.00	2.00
Polysorbate 80	1.00	1.00
Magnesium sulphate	0.575	0.575
Manganese sulphate	0.12	0.12
Ferrous sulphate	0.034	0.034
Agar	15.00	—
Final pH (at 25°C)	5.5 ± 0.2	5.4± 0.2

** Formula adjusted, standardized to suit performance parameters

Directions :

Suspend 84.7 grams of MV1180 or 69.7 grams of MV1166 in 1000 ml distilled water containing 1.32 ml glacial acetic acid. Heat with frequent stirring. Boil for 1 - 2 minutes to dissolve the medium completely. DO NOT AUTOCLAVE. If storage is necessary, autoclave at 12 lbs pressure (118°C) for 15 minutes.

Principle and Interpretation :

These media are prepared by using HiVeg hydrolysate in place of Casein enzymic hydrolysate which make the medium free of BSE/TSE risks. Lactobacillus Selection HiVeg Agar Base is used for isolation and enumeration of *Lactobacilli*. Lactobacillus Selection HiVeg Broth Base may be used for isolation and cultivation of *Lactobacilli*. These media are the modifications of the media developed by Rogosa et al (1, 2) as a selective media for isolation and enumeration of *Lactobacilli* from oral, faecal specimens (3), food (4) and dairy products (5).
HiVeg hydrolysate, yeast extract and dextrose are the nitrogen and carbon sources. Polysorbate 80 provides fatty acids required for the metabolism of *Lactobacilli*. Ammonium citrate and sodium acetate inhibit many organisms, including *Streptococci*, moulds and also restrict swarming. Addition of acetic acid lowers the pH which is inhibitory to many microorganisms but favours the growth of *Lactobacilli* on the agar medium. *Lactobacilli* appear as large, white colonies.

Quality Control :

Appearance of Powder
Yellow coloured, may have slightly greenish tinge, homogeneous, free flowing powder.

Gelling
Firm, comparable with 1.5% Agar gel of MV1180.

Colour and Clarity
Yellow coloured, slightly opalescent gel forms in petri plates, clear to slightly opalescent solution in tubes.

Reaction
Reaction of 8.47% w/v aqueous solution of MV1180 is pH 5.5 ± 0.2 at 25°C.

Product Profile :

Vegetable based (Code MV)◉	Animal based (Code M)
MV1180/MV1166 HiVeg hydrolysate	**M1180/M1166** Casein enzymic hydrolysate

Recommended for	:	Isolation and enumeration of *Lactobacilli* from foods.
Reconstitution	:	(MV1180) : 84.7 g/l
	:	(MV1166) : 69.7 g/l
Quantity on preparation (500g)	:	(MV1180) : 5.90 L
	:	(MV1166) : 7.17 L
pH (25°C)	:	(MV1180) : 5.5 ± 0.2
	:	(MV1166) : 5.4 ± 0.2
Supplement	:	Glacial acetic acid
Sterilization	:	Boiling (DO NOT AUTOCLAVE) / 118°C / 15 minutes (if medium is to be stored).

Storage : Dry Medium and Prepared Medium 2 - 8°C.

Reaction of 6.97% w/v aqueous solution of MV1166 is pH 5.4 ± 0.2 at 25°C.

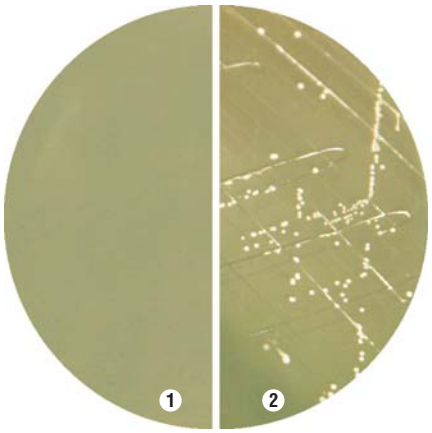
Cultural Response

Cultural characteristics observed after an incubation at 35-37°C for 48 hours, in presence of 3 - 5% CO_2.

Organisms (ATCC)	Inoculum (CFU)	Growth	Recovery
Lactobacillus acidophilus (4356)	10^2–10^3	luxuriant	>70%
Lactobacillus plantarum (8014)	10^2–10^3	luxuriant	>70%
Lactobacillus casei (9595)	10^2–10^3	luxuriant	>70%
Enterococcus faecalis (29212)	10^2–10^3	inhibited	0%
Proteus vulgaris (13315)	10^2–10^3	inhibited	0%

References :

1. Rogosa, Mitchell and Wiseman, 1951, J. Bacteriol., 62:132.
2. Rogosa, Mitchell and Wiseman, 1951, J. Dental Res., 30:682.
3. Ellis and Sarles, 1958, J. Bacteriol., 75:272.
4. Downes FP and Ito K (Eds.), 2001, Compendium of Methods For The Microbiological Examination of Foods, 4th ed., APHA, Washington, D.C.
5. Standard Methods for the Examination of Dairy Products, 17th Edition, 2004 Edited by H. Michael Wehr and Joseph H.Frank.



MV1180 Lactobacillus Selection HiVeg Agar Base
(Against dark background)

1. Control
2. *Lactobacillus acidophilus*

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