Actinomyces HiVeg™ Agar / Broth MV341/MV233

Actinomyces HiVeg Agar / Broth is recommended for the cultivation and maintenance of the anaerobic *Actinomyces* species.

Composition** :

Ingredients	MV341 Grams/Litre	MV233 Grams/Litre
HiVeg infusion	10.00	10.00
HiVeg hydrolysate No. 1	10.00	10.00
HiVeg hydrolysate	4.00	4.00
Yeast extract	5.00	5.00
Dextrose	5.00	5.00
L-Cysteine hydrochloride	1.00	1.00
Starch, soluble	1.00	1.00
Sodium chloride	5.00	5.00
Monopotassium phosphate	15.00	15.00
Ammonium sulphate	1.00	1.00
Magnesium sulphate	0.20	0.20
Calcium chloride	0.02	0.02
Agar	20.00	-
Final pH (at 25°C)	6.9 ± 0.2	7.2 ± 0.2

** Formula adjusted, standardized to suit performance parameters

Directions :

Suspend 77.22 grams of MV341 or 57.22 grams of MV233 in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Distribute into tubes or flasks. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Principle and Interpretation :

Actinomyces HiVeg Agar / Broth is prepared by using vegetable based peptones instead of animal based peptones making the medium BSE/TSE risk free. These media are the modifications of Actinomyces Agar/Broth which was formulated as a maintenance medium by Pine and Watson (1). The broth medium was further modified and recommended for growing and maintaining members of the genus *Actinomyces* (2).

HiVeg infusion, HiVeg hydrolysate, yeast extract, starch, dextrose and L-Cysteine provide carbon, nitrogen, sulphur, vitamins and other growth factors. Metallic salts provides essential electrolytes and minerals.

Quality Control:

Appearance of Powder

Light yellow coloured, may have slightly greenish tinge, homogeneous, free flowing powder.

Product Profile :

Vegetable based (Code MV)◉	Animal based (Code M)
MV341/MV233 HiVeg infusion HiVeg hydrolysate HiVeg hydrolysate No. 1	**M341/M233** Beef heart infusion Casein enzymic hydrolysate Tryptose

Recommended for	:	Cultivation and maintenance of anaerobic *Actinomyes* species
Reconstitution	:	(MV341) : 77.22 g/l
		(MV233) : 57.22 g/l
Quantity on preparation (500g)	:	(MV341) : 6.47 L
	:	(MV233) : 8.73 L
pH (25°C)	:	(MV341) : 6.9 ± 0.2
	:	(MV233) : 7.2 ± 0.2
Supplement	:	None
Sterilization	:	121°C / 15 minutes.

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

Gelling

Firm, comparable with 2.0% Agar gel of MV341.

Colour and Clarity

Light amber coloured slightly opalescent gel with a slight precipitate forms in petri plates, clear solution with a slight precipitate in tubes.

Reaction

Reaction of 7.72% w/v aqueous solution of MV341 is pH 6.9 ± 0.2 at 25°C.

Reaction of 5.72% w/v aqueous solution of MV233 is pH 7.2 ± 0.2 at 25°C.

Cultural Response

Cultural characteristics observed after an incubation at 30°C for 18-48 hours.

Organisms (ATCC)	Inoculum (CFU)	Growth	Recovery
Streptomyces achromogenes (12767)	10^2	good	>50%
Streptomyces albus (3004)	10^2	good	>50%
Streptomyces lavendulae (8664)	10^2	good	>50%
Actinomyces israelii (10049)	$<10^3$	luxuriant	>70%
Actinomyces bovis (13683)	$<10^3$	good	>50%

References :

1. Pine L. and Watson S. J., 1959, J. Lab. Clin. Med., 54(1), 107.
2. Ajello Georg, Kaplan and Kaufman, 1963, CDC Lab Manual Med. Mycology, PHS, Publication No. 994, CDC, Washington D.C.

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

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