Tryptone Agar Base, HiVeg™ / Tryptone Dextrose HiVeg™ Agar

MV319 / MV320

Tryptone Agar Base, HiVeg / Tryptone Dextrose HiVeg Agar is a semisolid medium which can be used for the determination of motility and carbohydrate fermentation reaction of aerobes and anaerobes.

Composition ** :

Ingredients	MV319 Grams/Litre	MV320 Grams/Litre
HiVeg hydrolysate	20.00	20.00
Phenol red	0.02	—
Dextrose	—	5.00
Bromo thymol blue	—	0.01
Agar	3.50	3.50
Final pH (at 25°C)	7.4 ± 0.2	7.3 ± 0.2

** Formula adjusted, standardized to suit performance parameters.

Directions :

Suspend 23.52 grams of MV319 or 28.51 grams of MV320 in 1000 ml distilled water. Heat to dissolve the medium completely. If desired add required amount of carbohydrate (0.5%) to MV319. Dispense in tubes and sterilize by autoclaving at 12 lbs pressure (118°C) for 15 minutes. Cool the tubed medium in an upright position.

Principle and Interpretation :

These media are prepared by using HiVeg hydrolysate which is free of BSE/TSE risks associated with animal based peptones. Tryptone Agar Base, HiVeg is the modification of Tryptone Agar Base which was developed by Vera (1) for the accurate differentiation and identification of aerobes and anaerobes by means of motility and fermentation reactions. Tryptone Agar Base, HiVeg is equivalent to the conventional medium recommended for *Clostridia*, *Bacillus* species, *Micrococci*, enteric bacilli and other non-fastidious organisms (2).

HiVeg hydrolysate provides essential nutrients necessary to support the growth of non-fastidious microorganisms. Phenol red is the pH indicator. Small amount of agar renders it suitable for study of motility. Small amounts of acid produced do not readily get dispersed throughout the medium and hence positive reaction can be more quickly determined in this medium than in liquid medium. This is also an excellent medium for the maintenance for both - aerobic and anaerobic cultures. Viability in this medium is greater than in any other broth medium or slant culture.

Quality Control :

Appearance of powder

Pink (MV319) or greenish yellow (MV320) coloured, homogeneous, free flowing powder.

Product Profile :		
Vegetable based (Code MV)◉		**Animal based** (Code M)
MV319/MV320 HiVeg hydrolysate		**M319/M320** Casein enzymic hydrolydsate
Recommended for	:	Determination of motility and carbohydrate fermentation reaction of aerobes and anaerobes.
Reconstitution	:	(MV319) : 23.52 g/l
	:	(MV320) : 28.51 g/l
Quantity on preparation (500g)	:	(MV319) : 21.25 L
	:	(MV320) : 17.53 L
pH (25°C)	:	(MV319) : 7.4 ± 0.2
	:	(MV320) : 7.3 ± 0.2
Supplement	:	(MV319) : Carbohydrate, if desired
Sterilization	:	118°C / 15 minutes
Storage : Dry Medium - Below 30°C, Prepared Medium 2 - 8°C.		

Gelling

Semisolid, comparable with 0.35% Agar gel.

Colour and Clarity

Red coloured (MV319) or blue coloured (MV320), clear to slightly opalescent gel forms in tubes as butts.

Reaction

Reaction of 2.35% w/v aqueous solution of MV319 is pH 7.4 ± 0.2 at 25°C. Reaction of 2.85% w/v aqueous solution of MV320 is pH 7.3 ± 0.2 at 25°C.

Cultural Response

Cultural characteristics observed after an incubation at 35-37° C for 24-48 hours.

Organisms (ATCC)	Growth	Motility	Acid
Enterobacter aerogenes (13048)	luxuriant	+	+
Escherichia coli (25922)	luxuriant	+	+
Salmonella serotype Enteritidis (13076)	luxuriant	+	+
Salmonella serotype Typhi (6539)	luxuriant	+	+
**Clostridium perfringens* (12924)	luxuriant	—	+
**Clostridium sporogenes* (11437)	luxuriant	+	+
Staphylococcus aureus (25923)	good	—	+

Key : + = motile / yellowing of the medium.
* = inocubated anaerobically

References :

1. Vera, 1944, J. Bact., 47:455.
2. MacFaddin 1985, Media for isolation-cultivation-identification-maintenance medical bacteria Vol, I, Williams, & Wilkins, Baltimore, MD

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

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