Purple HiVeg™ Agar / Broth Base MV098 / MV284

Purple HiVeg Agar / Broth Base is recommended for the preparation of carbohydrate media used in fermentation studies for the cultural identification of pure cultures of enteric and other microorganisms.

Composition ** :

Ingredients	MV098 Grams/Litre	MV284 Grams/Litre
HiVeg special peptone	10.00	10.00
HiVeg extract	1.00	—
Sodium chloride	5.00	5.00
Bromo cresol purple	0.02	0.02
Agar	15.00	—

Final pH (at 25°C) 6.8 ± 0.2
** Formula adjusted, standardized to suit performance parameters.

Directions :

Suspend 31 grams of MV098 and 15 grams of MV284 in 1000 ml distilled water. Add 5 - 10 grams of the carbohydrate to be tested. Heat to boiling to dissolve the medium completely. Dispense in tubes as desired and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Alternatively sterilize the basal medium prepared using 900 ml distilled water and add 100 ml separately sterilized 5 - 10% solution of the desired carbohydrate to it.

Principle and Interpretation :

These media are prepared by replacing Special peptone and Beef extract with HiVeg special peptone and HiVeg extract which are free from BSE/TSE risks. Purple HiVeg Media are the modification of Purple Media which were originally formulated by Vera (1).
HiVeg extract and HiVeg special peptone supply the essential nutrients especially nitrogenous to the growing organisms. Sodium chloride maintains the osmotic balance of the medium. Bromo cresol purple is the pH indicator which turns yellow at acidic pH. Gas production is evident by its collection in Durham's tube. The acid produced during the fermentation of carbohydrate causes bromo cresol purple, the pH indicator to turn yellow.
Purple HiVeg Broth is inoculated with 18 to 24 hours old pure culture and incubated for 24 to 72 hours (upto 30 days if necessary) at 35 ± 2°C either in an aerobic or anaerobic atmosphere depending on the organism being tested. It is recommended (3) to add carbohydrate in 1% concentration to avoid possible reversion reactions except glucose (dextrose). If the medium containing carbohydrate is sterilized by autoclaving, precautions should be taken to use minimum amount of heat required for sterilization to avoid hydrolysis of the carbohydrate.

Product Profile :

Vegetable based (Code MV)◉	Animal based (Code M)
MV098/MV284 HiVeg special peptone HiVeg extract	**M098/M284** Peptone special Beef extract

Recommended for	:	Fermentation studies for the cultural identification of pure cultures of enteric and other microorganisms.
Reconstitution	:	(MV098) : 31.0 g/l
	:	(MV284) : 15.0 g/l
Quantity on preparation (500g)	:	(MV098) : 16.12 L
	:	(MV298) : 33.33 L
pH (25°C)	:	6.8 ± 0.2
Supplement	:	Carbohydrate
Sterilization	:	121°C / 15 minutes.

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

Quality Control :

Appearance of powder
Greenish yellow coloured, homogeneous, free flowing powder.
Gelling
Firm, comparable with 1.5% Agar gel of MV098
Colour and Clarity
Purple coloured, clear gel forms in petri plates, clear solution in tubes.
Reaction
Reaction of 3.1% w/v of MV098 or 1.5% w/v of MV284 aqueous solution is pH 6.8 ± 0.2 at 25°C

Continued ...

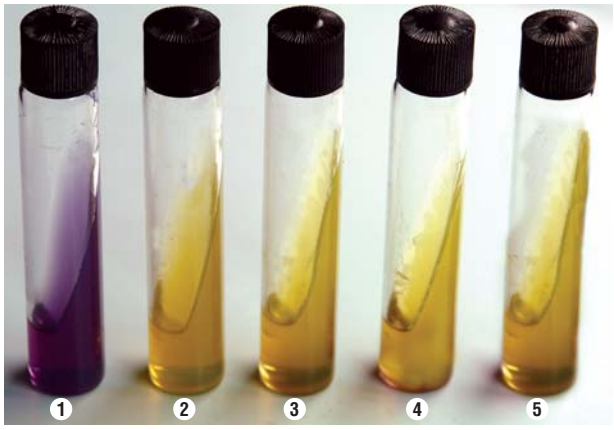
Purple HiVeg™ Agar / Broth Base MV098 / MV284

Cultural Response

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

Organisms (ATCC)	Inoculum (CFU)	Growth	without carbohydrate		with 1%dextrose	
			Acid	Gas	Acid	Gas
Neisseria meningitidis (13090)	10^2-10^3	good-luxuriant	—	—	+	—
Escherichia coli (25922)	10^2-10^3	luxuriant	—	—	+	+
Staphylococcus aureus (25923)	10^2-10^3	luxuriant	—	—	+	—
*Listeria monocytogenes** (19112)	10^2-10^3	luxuriant	—	—	+	—

Key : Acid + = yellow colour
* = fermentative metabolism



MV098 Purple HiVeg Agar (with 1% dextrose)

1. Control
2. *Neisseria meningitidis*
3. *Escherichia coli*
4. *Staphylococcus aureus*
5. *Listeria monocytogenes*

References :

1. Vera H.D., 1950, Am. J. Public Health, 40:1267.
2. Finegold and Baron, 1986, Bailey and Scott's Diagnostic Microbiology, 7th ed., The C.V. Mosby Co., St. Louis.
3. MacFaddin J., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. I Williams and Wilkins, Baltimore.