Andrade HiVeg™ Peptone Water / Andrade Peptone Water with HiVeg™ Extract No. 1

MV885/ MV909

Andrade HiVeg Peptone Water is a basal medium to which various carbohydrates can be added to study fermentation reactions, particularly of members of the *Enterobacteriaceae.*

Composition** :

Ingredients	MV885 Grams/Litre	MV909 Grams/Litre
HiVeg peptone	10.00	10.00
HiVeg extract No.1	-	3.00
Sodium chloride	5.00	5.00
Andrade indicator	0.10	0.10
Final pH (at 25°C)	7.4 ± 0.2	7.1 ± 0.2

** Formula adjusted, standardized to suit performance parameters

Directions :

Suspend 15.1 grams of MV885 or 18.1 grams of MV909 in 1000 ml distilled water. Dissolve the medium completely and dispense in test tubes containing inverted Durham's tubes. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to room temperature and aseptically add sterile stock solution of carbohydrate to a final concentration of 0.5% to 1.0% (w/v).

Principle and Interpretation :

These media contain HiVeg peptone or/and HiVeg extract No.1 of vegetable source in place of Peptic digest of animal tissue and Meat extract which makes the medium free of BSE/TSE risks associated with animal based peptone.

Andrade HiVeg Peptone Water is used for studying the various carbohydrate fermentation patterns of different organisms. HiVeg peptone like the peptone used in conventional medium is free from fermentable carbohydrates (1, 2) and the medium is also free from nitrates which may interfere with gas production. Andrade indicator is a solution of acid fuchsin which when titrated with sodium hydroxide; changes colour from pink to yellow. The Andrade indicator changes colour from yellow to pink as the pH decreases (2). The medium is pink when hot but becomes straw coloured on cooling. Test carbohydrate solutions should be sterilized separately and aseptically added to sterile Andrade HiVeg Peptone Water. The biochemical identification of organisms capable of growing in this medium is made by various sugar fermentation results (1,3,4).

Use fresh cultures of organisms only which have been presumptively identified by gram staining and colony morphology. For final identification further biochemical tests are required.

Quality Control:

Appearance of Powder

Light yellow coloured with pink tinge, homogeneous, free flowing powder.

Product Profile :

Vegetable based (Code MV)◉	Animal based (Code M)
MV885/MV909 HiVeg peptone HiVeg extract No. 1	**M885/M909** Peptic digest of animal tissue Meat extract

Recommended for	:	To study fermentation reactions of *Enterobacteriaceae*
Reconstitution	:	(MV885) : 15.1 g/l (MV909) : 18.1 g/l
Quantity on preparation (500g)	:	(MV885) : 33.11 L
	:	(MV909) : 27.62 L
(100g)	:	(MV885) : 6.62 L
pH (25°C)	:	(MV885) : 7.4 ± 0.2
	:	(MV909) : 7.1 ± 0.2
Supplement	:	Carbohydrates
Sterilization	:	121°C / 15 minutes.

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

Colour and Clarity

Light pink coloured, clear solution without any precipitate.

Reaction

Reaction of 1.51% w/v aqueous solution of MV885 is pH 7.4 ± 0.2 at 25°C.

Reaction of 1.81% w/v aqueous solution of MV909 is pH 7.1 ± 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	Acid*	Acid**
Escherichia coli (25922)	10^2	luxuriant	-	+
Salmonella serotype Typhi (6539)	10^2	luxuriant	-	+
Shigella sonnei (25931)	10^2	luxuriant	-	+

Key : * Acid = Acid in absence of added Dextrose.
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References :

1. Cowan S.T. and Steel K.J., 1974, Manual of Identification of Medical Bacteria, 2nd ed., Cambridge United Press.
2. MacFaddin J.F., 1985 (ed), Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol I, Williams and Wilkins, Baltimore.
3. Finegold S.M. and Baron E.J., 1986, Bailey and Scott's Diagnostic Microbiology, 7th ed., The C.V. Mosby Co., St. Louis.
4. .Murray PR, Baron, Pfaller, Tenover and Yolken (Eds.)2003, In Manual of Clinical Microbiology, 7th ed., ASM, Washington, D.C.

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

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