Eugonic HiVeg™ Agar / Broth MV428 / MV429

Eugonic HiVeg Agar / Broth is recommended for the cultivation of fastidious microorganisms like *Brucella, Haemophilus, Neisseria, Pasteurella and Lactobacillus* species.

Composition** :

Ingredients	MV428 Grams/Litre	MV429 Grams/Litre
HiVeg hydrolysate	15.00	15.00
Papaic digest of soyabean meal	5.00	5.00
Dextrose	5.00	5.00
Sodium chloride	4.00	4.00
Sodium sulphite	0.20	0.20
L-Cystine	0.20	0.20
Agar	15.00	—

Final pH (at 25°C) 7.0 ± 0.2
** Formula adjusted, standardized to suit performance parameters

Directions :

Suspend 44.4 grams of MV428 or 29.4 grams of MV429 in 1000 ml distilled water. Boil with frequent stirring to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45°C and add 5 -10% v/v sterile defibrinated blood if desired. The blood may be chocolated by heating, if chocolate agar plates are required.

Principle and Interpretation :

This medium is prepared by using HiVeg hydrolysate in place of Casein enzmyic hydrolysate in the conventional medium which makes the medium free of BSE/TSE risks. Eugonic HiVeg Agar / Broth is the modification of media formulated by Vera (1) to obtain eugonic (luxuriant) cultures of many organisms like *Brucella* which are otherwise difficult to cultivate. These media can be used with or without enrichment. Pelczar and Vera (2) used the conventional media for enumeration of bacteria in milk and milk products and Niven (3) for the detection of lactic acid in cured meats. The modified HiVeg media also are used for these purposes. Eugonic HiVeg Agar like Eugonic Agar can be used for bacterial counts in frozen meat, poultry microbiology (4, 5). It can be used with or without enrichments. Eugonic HiVeg Broth is used in the same manner as Eugonic HiVeg Agar. HiVeg hydrolysate, papaic digest of soyabean meal provides the nitrogen, vitamins and amino acids. Dextrose is the energy source for rapid growth of bacteria. L-Cystine and sodium sulfite are added to stimulate growth and sodium chloride maintains the osmotic balance of the media.

Quality Control :

Appearance of Powder

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

Product Profile :

Vegetable based (Code MV)◉	Animal based (Code M)
MV428/MV429 HiVeg hydrolysate	**M428/M429** Casein enzymic hydrolysate

Recommended for	:	Cultivation of fastidious microorganisms like *Brucella, Haemophilus, Neisseria, Pasteurella and Lactobacillus* species.
Reconstitution	:	(MV428) : 44.4 g/l
	:	(MV429) : 29.4 g/l
Quantity on preparation (500g)	:	(MV428) : 11.26 L
(500g)	:	(MV429) : 17.0 L
pH (25°C)	:	7.0 ± 0.2
Supplement	:	Defibrinated blood
Sterilization	:	121°C / 15 minutes.

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

Gelling

Firm, comparable with 1.5% Agar gel of MV428.

Colour and Clarity

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

Reaction

Reaction of 4.44% w/v of MV428 or 2.94% w/v of MV429 aqueous solution is pH 7.0 ± 0.2 at 25°C.

Cultural Response

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

Organisms (ATCC)	Inoculum (CFU)	Growth (plain)	Recovery**
**Streptococcus pneumoniae* (6303)	10^2-10^3	luxuriant	>70%
**Streptococcus pyogenes* (19615)	10^2-10^3	luxuriant	>70%
**Brucella abortus* (4315)	10^2-10^3	good	>50%
Neisseria meningitidis (13090)	10^2-10^3	good	>50%
Lactobacillus fermentum (9338)	10^2-10^3	good	>50%
Candida albicans (26790)	10^2-10^3	good	>50%
Bacillus pumilus (14884)	10^2-10^3	good (with 0.1% starch)	>50%

Key : * = under 10% CO_2
** = on MV428

References :

1. Vera, 1947, J. Bact., 54:14.
2. Pelczar and Vera, 1949, Milk Plant Monthly, 38:30.
3. Niven 1949, J.Bacteriol.58 :633
4. Harrison and Hansen, 1950, J. Bact., 59:197.
5. Frank, 1955, J. Bact., 70:269.

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