MOF HiVeg™ Medium MV379

MOF HiVeg Medium is used for differentiation between oxidative and fermentative carbohydrate metabolism of marine bacteria.

Composition ** :

Ingredients	Grams/Litre
HiVeg hydrolysate	1.0
Yeast extract	0.1
Tris hydroxymethyl aminomethane	0.5
Boric acid	0.011
Ammonium sulphate	0.5
Disodium phosphate	0.004
Ammonium nitrate	0.0008
Sodium chloride	9.7
Magnesium chloride	4.4
Sodium sulphate	1.6
Calcium chloride	0.9
Potassium chloride	0.275
Sodium bicarbonate	0.08
Potassium bromide	0.04
Strontium chloride	0.017
Sodium silicate	0.002
Sodium fluoride	0.0012
Phenol red	0.01
Agar	3.0

Final pH (at 25°C) 8.0 ± 0.2
** Formula adjusted, standardized to suit performance parameters.

Directions :

Suspend 22.14 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 55-60°C and aseptically add sterile dextrose solution (or other carbohydrate of choice) to a final concentration of 1%.

Principle and Interpretation :

This medium is prepared by replacing Casein enzymic hydrolysate with HiVeg hydrolysate which is free from BSE/TSE risks. MOF HiVeg Medium is the modification of MOF Medium which is a modified version of the formula originally developed by Leifson (1); used for differentiating oxidative and fermentative carbohydrate metabolising marine bacteria.
HiVeg hydrolysate and yeast extract supply the necessary nitrogenous nutrients including amino acids, vitamins etc. The mineral content of this medium is equivalent to one-half that of sea water (1). It contains a variety of salts found in seawater which not only make the medium suitable for marine bacteria but also buffers the medium. Phenol red is the pH indicator in the medium.

Product Profile :

Vegetable based (Code MV)◉	Animal based (Code M)
MV379 HiVeg hydrolysate	**M379** Casein enzymic hydrolysate

Recommended for	:	Differentiation between oxidative and fermentative carbohydrate metabolism of marine bacteria.
Reconstitution	:	22.14 g/l
Quantity on preparation (500g)	:	22.58 L
pH (25°C)	:	8.0 ± 0.2
Supplement	:	Carbohydrate
Sterilization	:	121°C / 15 minutes.

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

For differentiating the fermentation and oxidation of carbohydrates, inoculate two tubes of medium containing carbohydrate with each culture to be tested. Cover one tube of each culture by sterile melted petrolatum to form a layer about one inch in height. The marine bacteria which change the colour of the medium in both the tubes from red to yellow are carbohydrate fermenters and those which change the medium from red to yellow in the open (uncovered) tube only, are carbohydrate oxidizers. No change in the covered medium and an alkaline reaction in the uncovered medium by the marine bacteria are neither oxidative nor fermentative

Quality Control :

Appearance of powder
Pink coloured, homogeneous, free flowing powder.
Gelling
Semisolid, comparable with 0.3% Agar gel.
Colour and Clarity
Red coloured, clear gel forms in tubes as butts.
Reaction
Reaction of 2.2% w/v aqueous solution is pH 8.0 ± 0.2 at 25°C.
Cultural Response
Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.

Organisms (ATCC)	Growth	Acid	Gas	Motility
Vibrio cholerae (15748)	luxuriant	+	+	+
Vibrio parahaemolyticus (11344)	luxuriant	-	-	-

References :

1. Leifson, 1963, J. Bact., 85:1183.

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