

Egg Yolk Agar Base, HiVeg™

MV808

Egg Yolk Agar Base, HiVeg is used for isolation and identification of *Clostridia* and other anaerobic microorganisms.

Composition ** :

Ingredients	Grams/Litre
HiVeg peptone No. 3	40.0
Disodium phosphate	5.0
Monopotassium phosphate	1.0
Sodium chloride	2.0
Magnesium sulphate	0.1
Glucose	2.0
Ferric pyrophosphate	0.005
Agar	25.0

Final pH (at 25°C) 7.6 ± 0.2

** Formula adjusted, standardized to suit performance parameters.

Directions :

Suspend 75 grams in 900 ml distilled water. Heat to boiling to dissolve the medium completely. Dispense in 90 ml amounts and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 50-55°C and add 10 ml of sterile egg yolk emulsion (FD045) per 90 ml of medium. Mix well and pour into sterile plates.

Principle and Interpretation :

This medium is prepared by replacing Proteose peptone with HiVeg peptone No.3 which is free from BSE/TSE risks. HiVeg peptone No. 3 provides the nitrogenous sources, glucose provides the energy source. Ferric pyrophosphate improves the growth of anaerobic microorganisms. An egg yolk suspension is incorporated to detect the production of lecithinase, lipase and proteolytic activity. Lecithinase produced by bacteria acts on lecithin in egg yolk resulting in formation of a zone of insoluble precipitate in the medium surrounding the bacterial colonies (1). Lipolytic bacterial colony is surrounded by iridescent zone while proteolytic colonies are surrounded by a clear zone (2). Since lipase reaction may be delayed, plates should be kept up to 7 days before regarding as negative.

Quality Control :**Appearance of powder**

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

Gelling

Firm, comparable with 2.5% Agar gel.

Product Profile :

Vegetable based (Code MV)©		Animal based (Code M)	
MV808		M808	
HiVeg peptone No. 3 Ferric pyrophosphate		Proteose peptone Hemin	
Recommended for	:	Isolation and identification of <i>Clostridia</i> and other anaerobic microorganisms.	
Reconstitution	:	75.0 g/l	
Quantity on preparation (500g):	:	6.66 L	
pH (25°C)	:	7.6 ± 0.2	
Supplement	:	Egg Yolk Emulsion (FD045)	
Sterilization	:	121°C / 15 minutes.	
Storage : Dry Medium - Below 30°C, Prepared Medium 2 - 8°C.			

Colour and Clarity

Basal medium yields slightly opalescent medium amber coloured gel. Addition of Egg Yolk Emulsion (FD045) yields opaque, yellow coloured gel in petri plates.

Reaction

Reaction of 7.5% w/v aqueous solution is pH 7.6 ± 0.2 at 25°C.

Cultural Response

Cultural characteristics observed after an incubation at 35-37°C for 48-72 hours, when incubated anaerobically.

Organisms (ATCC)	Inoculum (CFU)	Growth	Recovery	Lecithinase	Protease	Lipase*
<i>Bacteroides fragilis</i> (25285)	10 ² -10 ³	good-luxuriant	>50%	-	-	-
<i>Clostridium botulinum</i> (25763)	10 ² -10 ³	good-luxuriant	>50%	-	+	-
<i>Clostridium butyricum</i> (9690)	10 ² -10 ³	good-luxuriant	>50%	-	+	-
<i>Clostridium perfringens</i> (12924)	10 ² -10 ³	good-luxuriant	>50%	+	-	-
<i>Clostridium sporogenes</i> (11437)	10 ² -10 ³	good-luxuriant	>50%	-	+	+

Key : for Lecithinase : + = precipitate around colonies.

For Lipase : + = iridescent sheen on the surface of growth.

For Protease : + = clear zone around growth.

* = Plates should be incubated upto 7 days before regarding them as negative

References :

1. Finegold and Baron, 1986, Bailey and Scott's Diagnostic Microbiology, 7th ed., The C.V. Mosby Company, St. Louis.
2. Murray PR, Baron, Tenover and Tenover (Eds.), 2003, In Manual of Clinical Microbiology, 8th ed., ASM, Washington, D.C.