Skim Milk HiVeg™ Agar MV763

Skim Milk HiVeg Agar is used for cultivation and enumeration of microorganisms encountered in dairy industry.

Composition ** :

Ingredients	Grams/Litre
Skim milk powder	28.0
HiVeg hydrolysate	5.0
Yeast extract	2.5
Dextrose	1.0
Agar	15.0

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

Directions :

Suspend 51.5 grams of 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.

Principle and Interpretation :

Skim Milk HiVeg Agar is prepared by completely replacing animal based peptones with vegetable peptones which makes the medium free of BSE/TSE risks. This medium is the modification of the medium recommended by APHA (1) for cultivation and enumeration of microorganisms encountered in dairy industry (2). Skim Milk HiVeg Agar like the conventional medium can be used for the demonstration of coagulation and proteolysis of casein (3). Skim Milk is sometimes used as a complete medium or as an ingredient in other medias for propagation of microorganisms present in contaminated milk products like *Mycobacterium tuberculosis*, *Corynebacterium diphtheriae* etc. Proteolytic bacteria hydrolyze casein to form soluble nitrogenous compounds indicated as clear zones surrounding the colonies.
HiVeg hydrolysate and yeast extract provide the essential nitrogenous nutrients, carbon, sulphur, vitamin B complex and trace elements to the organisms. Dextrose serves as carbohydrate source. Skim milk serves as a good source of casein.

Quality Control :

Appearance of powder
Light yellow coloured, may have slightly greenish tinge, homogeneous, free flowing powder.
Gelling
Firm, comparable with 1.5% Agar gel.
Colour and Clarity
Off white coloured, opaque gel forms in petri plates.
Reaction
Reaction of 5.15% w/v aqueous solution is pH 7.0 ± 0.2 at 25°C.

Product Profile :	
Vegetable based (Code MV)◉	**Animal based** (Code M)
MV763 HiVeg hydrolysate	**M763** Casein enzymic hydrolysate

Recommended for	:	Cultivation and enumeration of microorganisms encountered in dairy industry.
Reconstitution	:	51.5 g/l
Quantity on preparation (500g)	:	9.70 L
pH (25°C)	:	7.0 ± 0.2
Supplement	:	None
Sterilization	:	121°C / 15 minutes.

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

Cultural Response

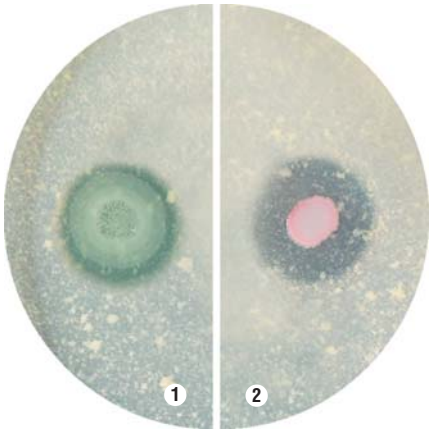
Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.

Organisms (ATCC)	Inoculum (CFU)	Growth	Proteolytic activity	Recovery
Bacillus subtilis (6633)	10^2-10^3	luxuriant	+	>70%
Enterococcus faecalis (29212)	10^2-10^3	luxuriant	-	>70%
Escherichia coli (25922)	10^2-10^3	luxuriant	-	>70%
Proteus mirabilis (25933)	10^2-10^3	luxuriant	+	>70%
Pseudomonas aeruginosa (27853)	10^2-10^3	luxuriant	+	>70%
Serratia marcescens (8100)	10^2-10^3	luxuriant	+	>70%

Key : + = clearance around colony.

References :

1. Vanderzant C. and Splittstoesser D. (Eds.), 1992, Compendium of Methods for the Microbiological Examination of Foods, 3rd ed., APHA, Washington, D.C.
2. Marshall R (Ed.) Standard Methods for the Examination of Dairy Products 16th Edition, 1992.
3. Frazier W.C. and Ripp P., 1928, J. Bact., 16 : 57.



MV763 Skim Milk HiVeg Agar
1. *Pseudomonas aeruginosa*
2. *Serratia marcescens*

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