

Lee's Multidifferential HiVeg™ Agar

MV1333

Lee's Multidifferential HiVeg Agar is used in the brewing industry for the cultivation and identification of brewing bacteria including the fastidious type.

Composition ** :

Ingredients	Grams/Litre
Tomato juice broth	41.00
HiVeg hydrolysate No. 3	20.00
Calcium pantothenate	2.00
Citric acid	1.10
Calcium carbonate	5.00
Polysorbate 80	0.50
Bromo cresol green	0.022
Cycloheximide	0.007
Agar	15.00

Final pH (at 25°C) 5.5 ± 0.2

** Formula adjusted, standardized to suit performance parameters.

Directions :

Suspend 85 grams in 1000 ml distilled water. Heat just to boiling. Sterilize by autoclaving at 15 lbs pressure (121°C) for 10 minutes. Avoid overheating. Stir the medium while dispensing to prevent settling of calcium carbonate.

NOTE : Due to the presence of calcium carbonate the prepared medium forms opalescent solution with white precipitate.

Principle and Interpretation :

Lee's Multidifferential HiVeg Agar is prepared by completely replacing animal based peptones with vegetable peptones which makes the medium free of BSE/TSE risks. Lee's Multidifferential HiVeg Agar is used for cultivation and identification of brewing bacteria.

The medium contains Tomato juice broth which provides nutrients and acid environment for the growth of acidophilic bacteria. HiVeg hydrolysate No.3 provides necessary carbon source. The low pH of the medium inhibits bacteria other than acidophilic bacteria. Polysorbate 80 serves as a source of fatty acids. Bromo cresol green acts as a pH indicator. Acid producing bacteria produce a clear yellow halo around the colonies. Other bacteria produce colonies in colours ranging from colourless to yellow green and blue depending on species and strain. Further tests should be carried out for their identification.

Product Profile :

Vegetable based (Code MV)☉	Animal based (Code M)
MV1333 HiVeg hydrolysate No.3	M1333 Peptonized milk
Recommended for	: The cultivation and identification of brewing bacteria including fastidious type.
Reconstitution	: 85.0 g/l
Quantity on preparation (500g)	: 5.88 L
pH (25°C)	: 5.5 ± 0.2
Supplement	: None
Sterilization	: 121°C / 10 minutes.
Storage	: Dry Medium and Prepared Medium 2 - 8°C.

Quality Control :**Appearance of powder**

Greenish yellow coloured, homogeneous, free flowing powder.

Gelling

Firm, comparable with 1.5% Agar gel.

Colour and Clarity

Light blue coloured, opaque gel forms in petri plates.

Reaction

Reaction of 8.5% w/v aqueous solution is pH 5.5 ± 0.2 at 25°C.

Cultural Response

Cultural characteristics observed after an incubation at 30°C for 48-72 hours.

Organisms (ATCC)	Inoculum (CFU)	Growth	Recovery
<i>A. calcoaceticus</i> (19606)	10 ² -10 ³	none-poor	< 20%
<i>Lactobacillus acidophilus</i> (4356)	10 ² -10 ³	luxuriant with clear yellow halo	> 70%
<i>Lactobacillus fermentum</i> (9338)	10 ² -10 ³	luxuriant with clear yellow halo	> 70%
<i>Lactobacillus leichmannii</i> (4797)	10 ² -10 ³	luxuriant with clear yellow halo	> 70%
<i>Lactobacillus plantarum</i> (8014)	10 ² -10 ³	luxuriant with clear yellow halo	> 70%
<i>Proteus vulgaris</i> (13315)	10 ² -10 ³	inhibited	0%