Wort HiVeg™ Agar / Broth MV129 / MV333

Wort HiVeg Agar / Broth is used for the cultivation and enumeration of yeasts.

Composition ** :

Ingredients	MV129 Grams/Litre	MV333 Grams/Litre
Malt extract	15.00	15.00
HiVeg peptone	0.78	0.78
Maltose	12.75	12.75
Dextrin	2.75	2.75
Dipotassium phosphate	1.00	1.00
Ammonium chloride	1.00	1.00
Agar	15.00	-

Final pH (at 25°C) 4.8 ± 0.2
** Formula adjusted, standardized to suit performance parameters

Directions :

Suspend 48.3 grams of MV129 or 33.28 grams of MV333 in 1000 ml distilled water containing 2.35 grams of glycerol. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Principle and Interpretation :

These media are prepared by using HiVeg peptone which is free from BSE/TSE risks associated with animal based peptones. Wort HiVeg Agar / Broth is the modification of Wort Agar / Broth which is formulated as described by Parfitt (1) for the cultivation and enumeration of fungi especially yeasts in syrups and butter. Yeast grows well in culture media containing dextrose or maltose in acidic environment.

In these media, HiVeg peptone and malt extract provide nitrogenous and other nutrients for the growth of yeasts. Dextrin and maltose are fermentable carbohydrates. Glycerol is a source of energy and promotes growth of yeasts. The high acidic pH inhibits many bacteria. Do not reliquefy agar medium as it may cause alteration of medium with hydrolysis of agar at low pH and results in failure to gel when cooled (2).

Techniques: For the microbiological examination of butter, make suitable dilutions in quarter strength Ringer solution. Transfer 1 ml of each dilution to a separate petriplate, add 15 ml of melted Wort HiVeg Agar, cooled to 45°C, mix well by rotating the plate, allow the plate to set at room temperature for 30–50 minutes. Incubate in an inverted position, for 5 days at 25°C, count the number of yeast and mould colonies.

For the examination of sugar products for osmophilic yeasts, dissolve Wort HiVeg Agar in a syrup containing 35 parts w/w of sucrose and 10 parts w/w of glucose and autoclave for 20 minutes at 110°C. Inoculate and mix well. Incubation to be carried out at 27°C for 3-4 days for *Schizosaccharomyces* species and for 5 days for less osmophilic yeasts.

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)
MV129/MV333 HiVeg peptone		**M129/M333** Peptic digest of animal tissue
Recommended for	:	Cultivation and enumeration of yeasts.
Reconstitution	:	(MV129) : 48.3 g/l
	:	(MV333) : 33.28 g/l
Quantity on preparation (500g)	:	(MV129) : 10.35 L
	:	(MV333) : 15.02 L
pH (25°C)	:	4.8 ± 0.2
Supplement	:	Glycerol
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 MV129.

Colour and Clarity
Yellow coloured, opalescent gel forms in petri plates, clear solution in tubes, may contain a flocculent precipitate.

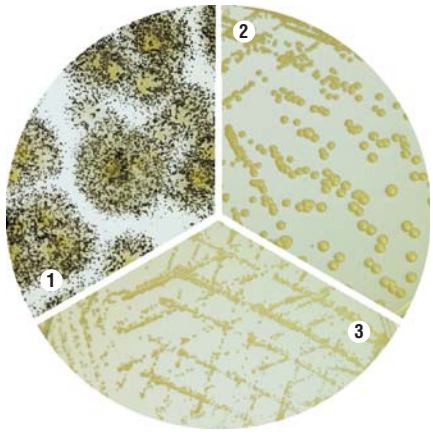
Reaction
Reaction of 4.83% w/v of MV129 or 3.33 % w/v of MV333 aqueous solution is pH 4.8 ± 0.2 at 25°C.

Cultural Response :
Cultural characteristics observed after an incubation at 30°C for 40-48 hours.

Organisms (ATCC)	Growth
Aspergillus niger (16404)	luxuriant
Saccharomyces cerevisiae (9763)	luxuriant
Saccharomyces uvarum (9080)	luxuriant
Candida albicans (10231)	luxuriant

References :

1. Parfitt, 1933., J. Dairy Sci., 19 : 141.
2. Macfaddin J. 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol.1. Williams and Wilkins, Baltimore.



MV129 Wort HiVeg Agar
1. *Aspergillus niger*
2. *Candida albicans*
3. *Saccharomyces cerevisiae*

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