

Modified Rogosa HiVeg™ Agar (M16 HiVeg™ Agar)**MV600**

Modified Rogosa HiVeg Agar (M16 HiVeg Agar) is recommended for enumeration of lactic *Streptococci* used in manufacture of cheddar cheese.

Composition ** :

Ingredients	Grams/Litre
Papaic digest of soyabean meal	5.0
HiVeg hydrolysate No. 1	5.0
HiVeg extract	5.0
Yeast extract	2.5
Dextrose	5.0
Ascorbic acid	0.5
Sodium acetate	3.0
Agar	10.0

Final pH (at 25°C) 7.2 ± 0.2

** Formula adjusted, standardized to suit performance parameters.

Directions :

Suspend 36 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.

Principle and Interpretation :

Modified Rogosa HiVeg Agar is prepared by completely replacing animal based peptones with vegetable peptones, which makes the medium free of BSE/TSE risks. M16 HiVeg Agar is a modification of Rogosa Sodium Lactate Agar recommended by APHA (1) which was developed to support growth of lactic *Streptococci* used in cheddar cheese manufacturing in New Zealand (2).

The samples to be tested are processed to enumerate bacteria by pour plate technique.

Papaic digest of soyabean meal, HiVeg hydrolysate No. 1 and HiVeg extract provide the essential nutrients like amino acids, minerals etc. Yeast extract supplies vitamin B complex to the lactic *Streptococci*. Dextrose is a fermentable carbohydrate. Sodium acetate inhibits other contaminating bacteria and suppresses swarming growth. Ascorbic acid provides vitamin C to the organisms.

Product Profile :

Vegetable based (Code MV) ©	Animal based (Code M)
MV600 HiVeg hydrolysate No. 1 HiVeg extract	M600 Tryptose Beef extract
Recommended for	: Enumeration of lactic <i>Streptococci</i> used in manufacture of cheddar cheese.
Reconstitution	: 36.0 g/l
Quantity on preparation (500g)	: 13.88 L
pH (25°C)	: 7.2 ± 0.2
Supplement	: None
Sterilization	: 121°C / 15 minutes
Storage : Dry Medium and Prepared Medium 2 - 8°C.	

Quality Control :**Appearance of powder**

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

Gelling

Firm, comparable with 1.0% Agar gel.

Colour and Clarity

Light amber coloured, clear to slightly opalescent gel forms in petri plates.

Reaction

Reaction of 3.6% w/v aqueous solution is pH 7.2 ± 0.2 at 25°C.

Cultural Response

Cultural characteristics observed after an incubation at 35-37°C for 18 - 48 hours.

Organisms (ATCC)	Inoculum (CFU)	Growth	Recovery
<i>Lactobacillus lactis</i> (8000)	10 ² -10 ³	good-luxuriant	>70%
<i>Streptococcus cremoris</i> (19527)	10 ² -10 ³	good-luxuriant	>70%

References :

- Vanderzant C. and Splittstoesser D. (Eds.), 1992, Compendium of Methods For The Microbiological Examination of Foods, 3rd ed., APHA, Washington, D.C.
- Lowrie R.J. and Pearce L.E. 1971, New Zealand, J. Dairy Sci. Technol., 6 : 166.