Rogosa SL HiVeg™ Agar / Broth MV130 / MV407

Rogosa SL HiVeg Agar / Broth is used as a selective medium for cultivation of oral and faecal *Lactobacilli*.

Composition** :

Ingredients	MV130 Grams/Litre	MV407 Grams/Litre
HiVeg hydrolysate No. 1	10.00	—
HiVeg hydrolysate	—	10.00
Yeast extract	5.00	5.00
Dextrose	10.00	10.00
Arabinose	5.00	5.00
Saccharose	5.00	5.00
Sodium acetate	15.00	15.00
Ammonium citrate	2.00	2.00
Monopotassium phosphate	6.00	6.00
Magnesium sulphate	0.57	0.57
Manganese sulphate	0.12	0.12
Ferrous sulphate	0.03	0.03
Polysorbate 80	1.00	1.00
Agar	15.00	—

Final pH (at 25°C) 5.4 ± 0.2

** Formula adjusted, standardized to suit performance parameters.

Directions :

Suspend 75 grams of MV130 or 60 grams of MV407 in 1000 ml distilled water. Boil to dissolve the medium completely. Add 1.32 ml glacial acetic acid. Mix thoroughly, distribute into culture tubes or flasks. Heat to 90 - 100°C for 2-3 minutes. Cool to 45°C for direct inoculation. DO NOT AUTOCLAVE.

Principle and Interpretation :

These media are prepared with the use of HiVeg hydrolysates in place of Tryptose and Casein enymic hydrolysate which makes the media free from BSE/TSE risks. Rogosa SL HiVeg Media are the modifications of the medium described by Rogosa et al (1) and give excellent results when used in qualitative and quantitative studies of *Lactobacilli* in faeces, saline and in dairy products.

HiVeg hydrolysate No.1 or HiVeg hydrolysate and yeast extract provide nitrogenous compounds, sulphur, trace elements and vitamin B complex, essential for growth of *Lactobacilli.* Dextrose, arabinose, saccharose are the fermentable carbohydrates. Polysorbate 80 acts as surfactant. Ammonium citrate and sodium acetate inhibit moulds, *Streptococci* and many other organisms. The low pH and high acetate concentrations effectively suppress other bacterial flora allowing *Lactobacilli* to flourish(2).

It is recommended that the plates or tubes should be incubated at 30°C for 5 days or at 37°C for 3 days in an atmosphere of 95% hydrogen and 5% carbon-dioxide (3). If this is not possible, overlay the inoculated plates with a second layer of the agar before incubation. High acetate concentration and acidic pH suppress many strains of other lactic acid bacteria. All colonies should be checked by gram staining and by catalase test before further identification.

Product Profile :

Vegetable based (Code MV)◉	Animal based (Code M)
MV130/MV407	**M130/M407**
HiVeg hydrolysate No. 1	Tryptose
HiVeg hydrolysate	Casein enzyme hydrolysate

Recommended for	:	Selective medium for cultivation of oral and faecal *Lactobacilli*.
Reconstitution	:	(MV130) : 75.0 g/l
	:	(MV407) : 60.0 g/l
Quantity on preparation (500g)	:	(MV130) : 6.66 L
	:	(MV407) : 8.33 L
pH (25°C)	:	5.4 ± 0.2
Supplement	:	Glacial Acetic Acid
Sterilization	:	Heating at 90-100°C for 2-3 mins. (DO NOT AUTOCLAVE.)

Storage : Dry Medium and Prepared Medium - 2 - 8°C.

Quality Control :

Appearance of Powder

Light yellow coloured, may have slightly greenish tinge, homogeneous powder containing soft lumps.

Gelling

Firm, comparable with 1.5% Agar gel of MV130.

Colour and Clarity

Light yellow coloured, slightly opalescent gel form in petri plates, clear solution in tubes.

Reaction

Reaction of 7.5% w/v of MV130 or 6.0% w/v of MV407 with 0.132% v/v glacial acetic acid is pH 5.4 ± 0.2 at 25°C.

Cultural Response

Cultural characteristics observed after an incubation at 35-37°C for 40-48 hrs, in 5% CO_2 and 95% H_2.

Organisms (ATCC)	Inoculum	Growth	Recovery
Lactobacillus casei (9595)	10^2-10^3	good to luxuriant	>70%
Lactobacillus fermentum (9338)	10^2-10^3	good to luxuriant	>70%
Lactobacillus leichmanni (4797)	10^2-10^3	good to luxuriant	>70%
Lactobacillus plantarum (8014)	10^2-10^3	good to luxuriant	>70%
Staphylococcus aureus (25923)	10^2-2 x10^3	inhibited	0%

References :

1. Rogosa M., Mitchell J.A. and Wiseman R.F., 1951, J. Bact., 62(1) : 132.
2. MacFaddin J.F., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. I, Williams and Wilkins, Baltimore.
3. Sharpe M., 1960, Lab-Practice, 9(4) : 223.

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