Technical Information

Rogosa SL MiVeg Broth

Product Code : VM1407

Application:- Rogosa SL MiVeg Broth is used as a selective medium for cultivation of oral and faecal *Lactobacilli*.

Composition

Ingredients	Gms / Litre
MiVeg hydrolysate	10.00
Yeast extract	5.00
Dextrose	10.00
Arabinose	5.00
Saccharose	5.00
Sodium acetate	15.00
Ammonium citrate	2.00
Monopotassium phosphate	6.00
Magnesium sulphate	0.57
Manganese sulphate	0.12
Ferrous sulphate	0.03
Polysorbate 80	1.00
Final pH (at 25°C)	5.4 ± 0.2

** Formula adjusted, standardized to suit performance parameters.

Principle & Interpretation

Rogosa SL MiVeg Broth is prepared by using MiVeg hydrolysate instead of Tryptose and Casein enzymic hydrolysate thereby making the medium free from BSE/TSE risks. Rogosa SL MiVeg Broth is the modification of the medium described by Rogosa et al (1) and it gives best results when used in qualitative and quantitative studies of *Lactobacilli* in faeces, saline and in dairy products.

MiVeg hydrolysate and yeast extract supplies nitrogenous compounds, sulphur, trace elements and vitamin B complex, essential for the growth of *Lactobacilli.* Dextrose, arabinose, saccharose are the fermentable carbohydrates. Polysorbate 80 act as surfactant. Ammonium citrate and sodium acetate have inhibitory action on moulds, *Streptococci* and many other organisms. The low pH and high acetate concentrations effectively suppress other bacterial flora thereby allowing *Lactobacilli* to flourish (2).

It is highly 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. Each colony should be checked by gram staining and by catalase test before further identification.

Methodology

Suspend 60 grams of powder media in 1000 ml distilled water. Mix well and heat to boiling to dissolve the medium completely. Add 1.32 ml glacial acetic acid. 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.

Quality Control

Physical Appearance

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

Colour and Clarity of prepared medium

Light yellow coloured, clear solution in tubes.

Reaction

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

pH Range

5.2-5.6

Cultural Response/Characteristics

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

Organisms (ATCC)	Inoculum (CFU)	Growth
Lactobacillus casei (9595)	10^2-10^3	Good-luxuriant
Lactobacillus fermentum (9338)	10^2-10^3	Good-luxuriant
Lactobacillus leichmanni (4797)	10^2-10^3	Good-luxuriant
Lactobacillus plantarum (8014)	10^2-10^3	Good-luxuriant
Staphylococcus aureus (25923)	10^2-2×10^3	inhibited

Storage and Shelf Life

Dried Media: Store below 30°C in tightly closed container and use before expiry date as mentioned on the label.
Prepared Media: 2-8^0 in sealable plastic bags for 2-5 day.

Further Reading

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.

Disclaimer :

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