Technical Information

Lactobacillus MRS Broth

Product Code: DM 1369

Application: - Lactobacillus MRS Broth is recommended for cultivation of all *Lactobacillus* species.

Composition**

Ingredients	Gms / Litre
Proteose peptone	10.000
Meat peptone	10.000
Yeast extract	5.000
Dextrose	20.000
Polysorbate 80	1.000
Ammonium citrate	2.000
Sodium acetate	5.000
Magnesium sulphate	0.100
Manganese sulphate	0.050
Dipotassium phosphate	2.000
Final pH (at 25°C)	6.5±0.2

**Formula adjusted, standardized to suit performance

Principle & Interpretation

Lactobacilli MRS media are based on the formulation of deMan, Rogosa and Sharpe [1] with slight modification. It supports luxuriant growth of all Lactobacilli from oral cavity [1], dairy products [2], foods [3], faeces [4] and other sources.

Proteose peptone and beef extract supply nitrogenous and carbonaceous compounds. Yeast extract provides vitamin B complex and dextrose is the fermentable carbohydrate and energy source. Polysorbate 80 supplies fatty acids required for the metabolism of Lactobacilli. Sodium acetate and ammonium citrate inhibit Streptococci, moulds and many other microorganisms.

Methodology

Suspend 55.15 grams of media powder in 1000 ml distilled water. Shake well & heat to dissolve the medium completely. Distribute in tubes, bottles or flasks as desired. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Quality Control

Physical Appearance
Cream to yellow homogeneous free flowing powder
Colour and Clarity of prepared medium
Yellow coloured, clear to slightly opalescent solution in tubes
Reaction
Reaction of 5.51% w/v aqueous solution at 25°C. pH : 6.5±0.2
pH Range: 6.3-6.7
Cultural Response/ characteristics
DM 1369: Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours or longer.(with 5% CO_2)

Organism	Inoculum (CFU)	Growth
		luxuriant
Lactobacillus casei ATCC 9595	50-100	

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° in sealable plastic bags for 2-5 days.

Further Reading

1. deMan J., Rogosa M. and Sharpe M., 1960, J. Appl. Bacteriol., 23:130.
2. Marshall R.T. (Ed.), 1992, Standard Methods for the Examination of Dairy Products, 16th ed., APHA, Washington,D.C.
3. Downes F.P.and Ito K.,(Eds.),2001,Compendium of Methods for the Microbiological Examination of Foods, 4th Ed., APHA, Washington, D.C.
4. Sabine and Vaselekos, 1965, Nature, 206:960.
5. MacFaddin J., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol.1, Williams and Wilkins, Baltimore.

Storage and Shelf Life
Store below 8°C and the prepared medium at 2 - 8°C. Use before expiry date on the label.

Disclaimer :

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