Technical Information

Lactobacillus Selection MiVeg Agar Base

Product Code : VM2180

Application:- :- Lactobacillus Selection MiVeg Agar Base is recommended for the isolation and enumeration of *Lactobacilli* from foods.

Composition

Ingredients	Gms / Litre
MiVeg hydrolysate	10.00
Yeast extract	5.00
Dextrose	20.00
Sodium acetate	25.00
Monopotassium hydrogen phosphate	6.00
Ammonium citrate	2.00
Polysorbate 80	1.00
Magnesium sulphate	0.575
Manganese sulphate	0.12
Ferrous sulphate	0.034
Agar	15.00
Final pH (at 25°C)	5.5 ± 0.2

** Formula adjusted, standardized to suit performance parameters.

Principle & Interpretation

Lactobacillus Selection MiVeg Agar Base is prepared by adding MiVeg hydrolysate instead of Casein enzymic hydrolysate thus making the medium free from BSE/TSE risks. This medium is the modification of the medium developed by Rogosa et al (1, 2) as a selective media for the isolation and enumeration of *Lactobacilli* from oral, faecal specimens (3), food (4) and dairy products (5).

MiVeg hydrolysate, yeast extract and dextrose supplies nitrogenous and carbonaceous compounds. Polysorbate 80 supplies fatty acids needed for the metabolism of *Lactobacilli*. Ammonium citrate and sodium acetate inhibit many organisms, including *Streptococci*, moulds and also restrict swarming. Addition of acetic acid lowers the pH which is inhibitory to many microorganisms but favours the growth of *Lactobacilli* on the agar medium. *Lactobacilli* appear as large, white colonies.

Methodology

Suspend 84.7 grams of powder media in 1000 ml distilled water containing 1.32 ml glacial acetic acid. Mix well and heat with frequent stirring. Boil for 1 - 2 minutes to dissolve the medium completely. DO NOT AUTOCLAVE. If storage is necessary, autoclave at 12 lbs pressure (118°C) for 15 minutes.

Quality Control

Physical Appearance

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

Gelling

Firm, comparable with 1.5% Agar gel.

Colour and Clarity of prepared medium

Yellow coloured, slightly opalescent gel forms in petri plates.

Reaction

Reaction of 8.47% w/v aqueous solution is pH 5.5 ± 0.2 at 25°C.

pH Range

5.3-5.7

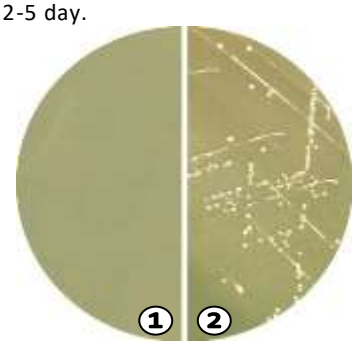
Cultural Response/Characteristics

Cultural characteristics observed after an incubation at 35-37°C for 48 hours, in presence of 3 - 5% CO_2.

Organisms (ATCC)	Inoculum (CFU)	Growth	Recovery
Lactobacillus acidophilus (4356)	10^2-10^3	luxuriant	>70%
Lactobacillus plantarum (8014)	10^2-10^3	luxuriant	>70%
Lactobacillus casei (9595)	10^2-10^3	luxuriant	>70%
Enterococcus faecalis (29212)	10^2-10^3	inhibited	0%
Proteus vulgaris (13315)	10^2-10^3	inhibited	0%

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.



VM2180 Lactobacillus Selection MiVeg Agar Base
(Against dark background)
1. Control
2. *Lactobacillus acidophilus*

Further Reading

1. Rogosa, Mitchell and Wiseman, 1951, J. Bacteriol., 62:132.
2. Rogosa, Mitchell and Wiseman, 1951, J. Dental Res., 30:682.
3. Ellis and Sarles, 1958, J. Bacteriol., 75:272.
4. Downes FP and Ito K (Eds.), 2001, Compendium of Methods For The Microbio- logical Examination of Foods, 4th ed., APHA, Washington, D.C.
5. Standard Methods for the Examination of Dairy Products, 17th Edition, 2004 Edited by H. Michael Wehr and Joseph H.Frank.

Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
- The product conform solely to the technical information provided in this booklet and to the best of knowledge research and development work carried at **CDH** is true and accurate.
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