Technical Information

APT MiVeg Broth

Product Code : VM1227

Application:- APT MiVeg Broth is recommended for the cultivation and maintenance of heterofermentative lactic acid bacteria requiring high thiamine.

Composition**

Ingredients	Grams/Litre
MiVeg hydrolysate	12.50
Yeast extract	7.50
Dextrose	10.00
Sodium citrate	5.00
Sodium chloride	5.00
Dipotassium phosphate	5.00
Magnesium sulphate	0.80
Manganese chloride	0.14
Ferrous sulphate	0.04
Polysorbate 80	0.20
Thiamine hydrochloride	0.001
Final pH (at 25°C)	6.7±0.2

** Formula adjusted, standardized to suit performance parameters.

Principle & Interpretation

APT MiVeg Broth is prepared by using vegetable peptones instead of animal based peptones there by making the media BSE/TSE risk free. This medium is the modification of APT (All purpose Tween 80) Broth which is formulated as per Evans and Niven (1) for cultivation and maintenance of *Lactobacillus viridescens* ATCC 12706 used in the microbiological assay of thiamine. This medium is also used for microbiological examination of cured meats, sauerkraut, fruit juices and meat products.

Although this medium was devised for *Lactobacilli*, it is rich due to nutrients like MiVeg hydrolysate, yeast extract, dextrose, polysorbate 80 and hence can support growth of commensal microflora including coliform bacteria. Magnesium sulphate, manganese chloride and ferrous sulphate provide essential ions for the multiplication of *Lactobacilli* or lactic *Streptococci*. Polysorbate 80 serve as a fatty acid source required by *Lactobacillus*.

Methodology

Suspend 46.2 grams of powder media in 1000 ml distilled water. Mix thoroughly heat to boiling to dissolve the medium completely. Dispense in test tube. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. AVOID EXCESSIVE HEATING.

Quality Control

Physical Appearance

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

Colour and Clarity of prepared medium

Yellow coloured, clear solution in tubes.

Reaction

Reaction of 4.62% w/v of aqueous solution pH 6.7±0.2 at 25°C

pH range

6.5-6.9

CulturalResponse/Characteristics

Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.

Organisms (ATCC)	Inoculum (CFU)	Growth
Lactobacillus viridescens (12706)	10^2-10^3	good-luxuriant
Lactobacillus acidophilus (4356)	10^2-10^3	good-luxuriant
Leuconostoc mesenteroides (12291)	10^2-10^3	good-luxuriant
Lactobacillus fermentum (9338)	10^2-10^3	good-luxuriant
Lactobacillus plantarum (14917)	10^2-10^3	good-luxuriant
Lactobacillus lactis (19435)	10^2-10^3	good-luxuriant

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 days

Further Reading

1. Evans and Niven, 1951, J. Bact., 62:599.

Disclaimer

- User must ensure suitability of the product(s) in their application prior to use.
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