

Technical Information

Pantothenate Inoculum MiVeg Broth

Product Code : VM1542

Application:- Pantothenate Inoculum MiVeg Broth is recommended for the cultivation of *Lactobacilli* used in microbiological assays.

Composition

Ingredients	Gms / Litre
MiVeg hydrolysate No.3	15.0
Yeast extract	5.0
Dextrose	10.0
Monopotassium phosphate	2.0
Tomato juice (100 ml)	5.0
Polysorbate 80	1.0
Final pH (at 25°C)	6.8 ± 0.2

** Formula adjusted, standardized to suit performance parameters.

Principle & Interpretation

Pantothenate Inoculum MiVeg Broth is prepared by adding MiVeg hydrolysate No.3 in place of Peptonized milk thereby making the medium free from BSE/TSE risks associated with animal based peptones. Pantothenate Inoculum Broth is prepared based on the formula originally described by Kulp and White (1) and later on modified and recommended by AOAC (2) for *Lactobacilli* cultivation used in microbiological assays. This medium can also be used for plating *Lactobacillus acidophilus* and to obtain high recovery of *Lactobacilli* (1). Pantothenate Inoculum MiVeg Broth is the modification of this medium.

MiVeg hydrolysate No. 3 supplies essential growth nutrients for *Lactobacilli* species. Dextrose is the fermentable carbohydrate and/or energy source. Yeast extract and MiVeg hydrolysate No. 3 provides vitamin B complex, nitrogenous compounds and trace ingredients for the growth. Polysorbate 80 supplies fatty acids needed for the metabolism of *Lactobacilli*. Tomato juice addition in the medium creates acidic environment thereby it favours the growth of acidophilic microorganisms while inhibiting other flora.

Methodology

Suspend 38 grams of powder media in 1000 ml distilled water. Mix thoroughly and heat if necessary to boiling to dissolve the medium completely. Distribute in tubes and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Quality Control

Physical Appearance

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

Colour and Clarity of prepared medium

Medium amber coloured, clear solution without any precipitate.

Reaction

Reaction of 3.8% w/v aqueous solution is pH 6.8 ± 0.2 at 25°C.

pH Range

6.6 - 7.0

Cultural Response/Characteristics

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

Organisms (ATCC)	Inoculum (CFU)	Growth
<i>Lactobacillus casei</i> (9595)	10^2 - 10^3	luxuriant
<i>Lactobacillus leichmannii</i> (4797)	10^2 - 10^3	luxuriant
<i>Lactobacillus plantarum</i> (8014)	10^2 - 10^3	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° in sealable plastic bags for 2-5 day.

Further Reading

1. Kulp J.W.L. and White V., 1932, Science, 76:17.
2. Williams (Ed), 2005, Official Methods of Analysis of AOAC, International, 18th AOAC, Washington, D.C.

Disclaimer :

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