B12 Culture Agar (L. leichmannii Maintenance Medium) M035

Intended Use:

Recommended for propagation, cultivation and maintenance of *Lactobacillus leichmannii* ATCC 7830.

Composition**

Ingredients	Gms / Litre
Peptic digest of animal tissue	7.500
Yeast extract	7.500
Dextrose	10.000
Monopotassium phosphate	2.000
Tomato juice (from 100 ml)	5.000
Polysorbate 80	0.100
Agar	10.000
Final pH (at 25°C)	6.8±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 42.1 grams in 1000 ml purified / distilled water. Heat to boiling to dissolve the medium completely. Dispense in 10 ml amounts in tubes and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool the tubed medium in an upright position with rapidity to avoid colour formation due to overheating.

Principle And Interpretation

B12 Culture Agar recommended by USP for cultivation and maintenance of *Lactobacillus leichmannii* ATCC 7830 (*Lactobacillus delbrueckii subsp.lactis* ATCC 7830) which is used as a test bacterium during the microbiological estimation of vitamin B12 (1). *Lactobacillus* species have very exacting nutritional requirements for amino acids and vitamins. This restricts them to nutritionally compete in the environment. *Lactobacillus* species grow poorly on non-selective media. Kulp (2) found that the growth of *Lactobacillus acidophilus* was enhanced with tomato juice, while investigating the use of tomato juice on bacterial development, which was reported earlier by Mickle and Breed (3) for the microbiological assay of vitamins.

Peptic digest of animal tissue serves as a source of nitrogen and amino acids. Yeast extract is the vitamin source. Tomato juice is added to create the proper acidic environment. Dextrose is the carbon source and Polysorbate 80 acts as an emulsifier. Monopotassium phosphate provides buffering capacity.

Stock cultures of *Lactobacillus leichmannii* ATCC 7830 are prepared by stab inoculation of 3 or more tubes. These stab cultures are made at least 3 times in a week. Do not use the culture for preparing assay inoculum if it is over 4 days old. Before using a fresh culture for assay, make at least 10 successive transfers of the culture in 15 days period. Incubate the culture for 16-24 hours at 35°C but hold constant within 0.5°C. After incubation, store at 2-8°C.

Type of specimen

re isolates

Specimen Collection and Handling

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Warning and Precautions :

Read the label before opening the container. Wear protective gloves/protective clothing/eye protection/ face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling specimens. Saffty guidelines may be referred in individual safety data sheets.

Limitations :