

CM 20214 – B12 CULTURE AGAR (L.leichmannii Maintenance Medium)

INTENDED USE

For propagation cultivation and maintenance of L.leichmannii ATCC 7830.

PRODUCT SUMMARY AND EXPLANATION

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. 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 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 for the microbiological assay of vitamins. 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.

COMPOSITION

Ingredients	Gms / Ltr
Peptone	7.500
Yeast extract	7.500
Dextrose (Glucose)	10.000
Potassium dihydrogen phosphate	2.000
Tomato juice (from 100 ml)	5.000
Polysorbate 80 (Tween 80)	0.100
Agar	10.000

PRINCIPLE

Peptone serves as a source of nitrogen, carbon and long chain 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. Potassium dihydrogen phosphate provides buffering capacity.

INSTRUCTION FOR USE

- Dissolve 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 psi pressure (121°C) for 15 minutes.
- Cool the tubed medium in an upright position with rapidity to avoid colour formation due to overheating.

QUALITY CONTROL SPECIFICATIONS

- Appearance of Powder : Cream to yellow homogeneous free flowing powder.
- Appearance of prepared medium : Medium amber coloured, clear to slightly opalescent gel forms in tubes.
- pH (at 25°C) : 6.8±0.2

INTERPRETATION



Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period
Lactobacillus leichmannii	7830	50-100	Good-luxuriant	35-37°C	16-24 Hours

PACKAGING:

Inpacksizeof100 gm bottles.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.










Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

Afteruse,prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES

1. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
2. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.
3. Kulp and White, 1932, Science 76:17.
4. Mickle and Breed, 1925, Technical Bulletin 110, NY State Agriculture Ex. station, Geneva, N.Y
5. The United States Pharmacopoeia, 2019, The United States Pharmacopoeial Covention, Rockville, MD.

 GMP Good Manufacturing Practices Certified	 Best Before	 QTY. Quantity	 REF Cataloge Number	 Manufacturer
 Temperature Unit	 LOT/ B. NO. Lot / Batch Number	 Consults Instructions for Use	 QR Code	

NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

*For LabUse Only

