

CM 20167 – APT BROTH

INTENDED USE

For cultivation of hetero-fermentative Lactic acid bacteria by extra thiamine content.

PRODUCT SUMMARY AND EXPLANATION

APT(All purpose Tween 80) Broth is formulated as per Evans and Niven for cultivation and maintenance of *Lactobacillus viridescens* ATCC 12706 used in the microbiological assay of thiamine. APT Broth is recommended for the cultivation of hetero fermentative lactic acid bacteria requiring high thiamine content. The composition of APT Broth is similar to APT Agar, which is formulated as recommended by APHA for the microbiological examination of cured meats, souerkraut, except agar. APT Broth is used for growing *Weissella viridescens* ATCC 12706 (formerly *Lactobacillus viridescens*) and also for preparing the inoculum for thiamine assay.

COMPOSITION

Ingredients	Gms / Ltr
Tryptone	12.500
Yeast extract	7.500
Dextrose (Glucose)	10.000
Sodium citrate	5.000
Sodium chloride	5.000
Dipotassium hydrogen phosphate	5.000
Magnesium sulphate	0.800
Manganese chloride	0.140
Ferrous sulphate	0.040
Polysorbate 80 (Tween 80)	0.200
Thiamine hydrochloride	0.001

PRINCIPLE

Although this medium was devised for *Lactobacilli*, it is rich due to nutrients like Tryptone, yeast extract, dextrose, polysorbate 80 and hence can support growth of commensal microflora including coliform bacteria. The metallic salts are essential for the replication of *Lactobacilli* or lactic *Streptococci*. Polysorbate 80 acts as fatty acid source.

INSTRUCTION FOR USE

Dissolve 46.2grams in 1000 ml purified/distilled water.

Heat if necessary to dissolve the medium completely.

Dispense in tubes or flasks as desired. Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.

AVOID EXCESSIVE HEATING.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Cream to yellow homogeneous free flowing powder.

Appearance of prepared medium : Yellow coloured clear solution in tubes.

pH (at 25°C) : 6.7±0.2



INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period
Lactobacillus acidophilus	4356	50-100	Good-luxuriant	35-37°C	18-24 Hours
Weissella viridescens	12706	50-100	Good-luxuriant	35-37°C	18-24 Hours
Leuconostoc mesenteroides	12291	50-100	Good-luxuriant	35-37°C	18-24 Hours
Lactobacillus casei	9595	50-100	Good-luxuriant	35-37°C	18-24 Hours
Lactobacillus plantarum	8014	50-100	Good-luxuriant	35-37°C	18-24 Hours

PACKAGING:

In pack size of 500 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

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

REFERENCES

1. Evans and Niven, 1951, J. Bact., 62:599.
2. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
3. 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.
4. Salfinger Y., and Tortorello M.L. Fifth (Ed.), 2015, Compendium of Methods for the Microbiological Examination of Foods, 5th Ed., American Public Health Association, Washington, D.C.



 GMP Good Manufacturing Practices Certified	 Best Before	 QTY. Quantity	 REF Catalogue 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

