

APT Broth



Medium used for the cultivation of heterofermentative lactobacilli and other organisms requiring high thiamine content.

• CONTENTS (Liter)

Pancreatic Digest of Casein	12.5 g
Yeast Extract	7.5 g
Dextrose	10.0 g
Sodium Citrate	5.0 g
Sodium Chloride	5.0 g
Manganese Chloride	0.14 g
Dipotassium Phosphate	5.0 g
Magnesium Sulfate	0.8 g
Ferrous Sulfate	0.04 g
Thiamine Hydrochloride	0.001 g
Polysorbate 80	0.2 g
Final pH = 6.7 ± 0.2 at 25°C.	

• PROCEDURE

Suspend 46.18 G of powder in 1 L of distilled or deionized water. Heat to boiling until completely dissolved. Sterilize by autoclave at 121°C for 15 minutes. Cool to 45-50°C in water bath. Mix well. Dispense in tubes.

• INTERPRETATION

APT Broth is a medium used for the cultivation of heterofermentative lactobacilli and other organisms requiring high thiamine content. Pancreatic digest of casein provides carbon, nitrogen, vitamins and minerals. Yeast extract supplies B-complex vitamins which is required for bacterial growth. Dextrose is a source of carbohydrate. Manganese chloride, magnesium sulfate and Ferrous sulfate provide ions used in replication by lactobacilli. Dipotassium phosphate is the buffering agents. Polysorbate 80 is a source of fatty acids required by lactobacilli.

• TECHNIC

Inoculate the specimen with stab using a sterile needle to the medium. Shake gently for spreading microorganism. Incubate at 35 ± 2°C for 24 - 48 hours. Refer appropriate references for recommended test procedure.

• QUALITY CONTROL FOR USE

Dehydrated medium

Appearance: free-flowing, homogeneous.

Color: light beige.

Prepared medium

Appearance: slightly opalescent.

Color: amber.

Incubation conditions: 35 ± 2°C / 24 - 48 hours

Microorganism	ATCC	Inoculum CFU	Growth
<i>Lactobacillus delbrueckii</i>	11842	50-100	good
<i>Lactobacillus fermentum</i>	9338	50-100	good
<i>Lactobacillus plantarum</i>	8014	50-100	good

• STORE

The powder is very hygroscopic. Store the powder at room temperature, in a dry environment, in its original container tightly closed and use it before the expiry date on the label or until signs of deterioration or contamination are evident. Store prepared medium at 2-8°C.

• REFERENCES

1. Evans and Niven, 1951, J. Bacteriol, 62:599.
2. Downes F. P. And Ito K. (Eds.), 2001, Compendium of Methods for the Microbiology Examination of Foods, 4th ed., APHA, Washington D. C.

• PACKAGE

Cat. No : MB-A0814 APT Broth	500 G
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