

Cystine Tellurite Blood Agar (CTBA)



Medium used for the isolation and identification of *Corynebacterium diphtheriae*.

• CONTENTS (Liter)

Heart Infusion	10.0 g
Tryptose	10.0 g
Sodium Chloride	5.0 g
Agar	15.0 g
Final pH = 7.4 ± 0.2 at 25°C	

• PROCEDURE

Suspend 40.0 G of powder in 850 mL of distilled or deionized water. Heat to boiling until completely dissolved. Sterilize in autoclave at 121°C for 15 minutes. Cool to 45 - 50°C in water bath. Aseptically add 2 vials of Cystine Tellurite Blood Agar (CTBA) supplement (MB-C0749) and 5% of Sheep Blood Defibrinated (MB-S1876). Mix well. Pour into petri dishes.

Cystine Tellurite Blood Agar (CTBA) supplement

1 vial contents (each vial is sufficient for 500mL of medium)

Potassium Tellurite	0.25 g
L-Cystine	0.025 g

• INTERPRETATION

Cystine Tellurite Blood Agar (CTBA) is a medium used for the isolation and identification of *Corynebacterium diphtheriae*. Heart infusion and tryptose supply necessary nutrients for the growth of *Corynebacterium diphtheriae*. Sodium chloride maintains the osmotic balance. Agar is the solidifying agent. Potassium tellurite inhibits most upper respiratory tract of normal flora except *Corynebacterium* species and also inhibits the growth of majority of Gram-negative bacteria. L-Cystine improves bacterial growth. Staphylococci and streptococci can produce black colonies by reducing potassium tellurite. Further biochemical tests such as Gram staining are required to distinguish from *Corynebacterium diphtheriae* due to these similar reactions.

• TECHNIC

Inoculate the specimen using a sterile loop to the medium. Incubate at 35 ± 2°C for 24 - 48 hours up to 72 hours. Refer appropriate references for recommended test procedure.

• QUALITY CONTROL FOR USE

Dehydrated medium

Appearance: free-flowing, homogeneous

Color: beige

Prepared medium

Appearance: clear

Color: amber / cherry red

Incubation conditions: 35 ± 2°C / 24 - 48 hours up to 72 hours

Microorganism	ATCC	Inoculum CFU	Growth	Characteristics
<i>Corynebacterium diphtheriae</i>	11913	50-100	good	dull black colonies
<i>Escherichia coli</i>	25922	≥10 ³	inhibited	-

• 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. Store prepared medium at 2 - 8°C.

• REFERENCES

1. Tinsdale G. F. W., 1947, J. Pathol. Bacteriol., 59(3):461.
2. Moore M. S. and Parsons E. I., 1958, J. Infect. Dis., 102:88.

• PACKAGE

Cat. No : MB-C0654 Cystine Tellurite Blood Agar (CTBA)	500 G
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