

TSC (Tryptose-Sulfite-Cycloserine) Agar



Medium used for the isolation and cultivation of *Clostridium perfringens*.

*Equally use with MFDS (MB-T2280K) and QIA (MB-T2280Q).

• CONTENTS (Liter)

Tryptose	15.0 g
Yeast Extract	5.0 g
Soytone	5.0 g
Ferric Ammonium Citrate	1.0 g
Sodium Metabisulfite	1.0 g
Agar	20.0 g
Final pH = 7.6 ± 0.2 at 25°C	

• PROCEDURE

Suspend 47.0 G of powder in 900 mL 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. Aseptically add 10% of Egg Yolk Emulsion (MB-E1864) and 20 mL of D-Cycloserine solution (MB-C1810). Mix well. Pour into petri dishes.

D-Cycloserine solution*

1 vial contents

D-Cycloserine 0.2 g

*Alternatively use with MB-C1811Q.

• INTERPRETATION

TSC (Tryptose-Sulfite-Cycloserine) Agar is a medium used for the isolation and cultivation of *Clostridium perfringens*. Tryptose, yeast extract and soytone provide nitrogen, carbon, vitamins and minerals. Ferric ammonium citrate and sodium metabisulfite are indicators of sulfate reduction. D-Cycloserine inhibits the catalyst which are necessary for the biosynthesis of the bacterial cell wall.

• TECHNIC

Inoculate the plates with spreading the specimen on surface of the medium using a sterile loop. Incubate at 36 ± 1°C for 18 - 24 hours under anaerobic condition. Refer appropriate references for recommended test procedure.

• QUALITY CONTROL FOR USE

Dehydrated medium

Appearance: free-flowing, homogeneous

Color: light beige

Prepared medium

Appearance: opalescent

Color: amber

Incubation conditions: 36 ± 1°C / 18 - 24 hours / anaerobic condition

Microorganism	ATCC	Inoculate CFU	Growth	Characteristics
<i>Clostridium perfringens</i>	13124	50-100	good	black colonies
<i>Clostridium sporogenes</i>	11437	50-100	good	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 or until signs of deterioration or contamination are evident. Store prepared medium at 2 - 8°C.

• REFERENCES

1. Sahidi S.A. and Ferguson A.R. (1971) Appl. Microbiol, 21 500-506. Harmon S.M., Kauttar D.A. and Peeler J.T. (1971) Appl. Microbiol. 21 922-927. Hauschild A.H.W. and Hilsheimer R. (1973) Appl. Microbiol. 27. 78-82.
2. International standard ISO 7937 Microbiology of food and animal feeding stuffs-Horizontal method for enumeration of *Clostridium perfringens* - colony count technique.
3. Refer to the MFDS and QIA.

• PACKAGE

Cat. No : MB-T2280 TSC (Tryptose-Sulfite-Cycloserine) Agar	500 G
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