

Color mCP



Medium used for the isolation and identification of *Clostridium perfringens* from water samples.

*Equally use with mCP (Membrane Clostridium Perfringens) Agar (MB-C1199).

• CONTENTS (Liter)

Tryptose	30.0 g
Yeast Extract	20.0 g
Sucrose	5.0 g
L-Cysteine	1.0 g
Magnesium Sulfate	0.1 g
Ferric Chloride Hexahydrate	0.09 g
Bromocresol Purple	0.04 g
Indoxyl- β -D-glucoside	0.06 g
Agar	15.0 g
Final pH = 7.6 \pm 0.2 at 25°C	

• PROCEDURE

Suspend 71.29 G of powder in 980 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 2 vials of mCP (Membrane Clostridium Perfringens) supplement (MB-M1834) and 2 vials of Phenolphthalein Diphosphate Tetrasodium Salt Solution (MB-P0736). Mix well. Pour into petri dishes.

mCP (Membrane Clostridium Perfringens) supplement

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

Polymyxin B	0.0125 g
D-Cycloserine	0.2 g

Phenolphthalein Diphosphate Tetrasodium Salt Solution

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

Phenolphthalein Diphosphate	0.05 g
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• INTERPRETATION

Color mCP is a medium used for the isolation and identification of *Clostridium perfringens* from water samples. Tryptose and yeast extract provide nitrogenous compounds. Sucrose is the fermentable carbohydrate. L-Cysteine is the reducing agent. Magnesium sulfate and ferric chloride provide ions to organisms for growth. Bromocresol purple is a pH indicator. Indoxyl- β -D-glucoside is a substrate for β -D-glucosidase. *Clostridium perfringens* does not possess β -D-glucosidase activity. It forms opaque yellow colony. Agar is the solidifying agent. Polymyxin B and D-cycloserine are selective agents. *Clostridium perfringens* colonies can be tested for acid phosphatase activity by exposure of 20 - 30 seconds to ammonium hydroxide. Colonies turn pink to red as phenolphthalein diphosphate is cleaved by acid phosphatase. Other *Clostridium* spp. remain yellow, purple or blue to green after exposure to ammonium hydroxide.

• TECHNIC

Filter the water sample using a 0.45 μ m filter. Place the filter onto the medium. Incubate at 44 \pm 1°C for 24 - 48 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: clear to slightly opalescent

Color: purple

Incubation conditions: $44 \pm 1^{\circ}\text{C}$ / 24 - 48 hours under anaerobic condition

Microorganism	ATCC	Growth	Characteristics	Acid phosphatase
<i>Clostridium perfringens</i>	13124	good	yellow colonies	+
<i>Clostridium sporogenes</i>	11437	good	blue colonies	-
<i>Escherichia coli</i>	25922	inhibited	-	-

• STORE

The powder is very hygroscopic. Store the powder at 2 - 8°C, 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. Bisson, J.W., and J.V. Cabelli, (1979) Applied and Environmental Microbiology, Vol. 37, No. 1, pp 55-88.
2. E. U. (1988) 98/83/EC of Council of 3rd of November 1998 on the quality of water intended for human consumption. Off. J. Eur. Commun., L330, 32- 54.
3. D. L. 02/02/2001 n°31.

• PACKAGE

Cat. No : MB-C2623 Color mCP	500 G
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