

Charcoal Agar



Medium used for the isolation and cultivation of *Bordetella pertussis*.

• CONTENTS (Liter)

Beef Heart Infusion	12.0 g
Peptone	10.0 g
Soluble Starch	10.0 g
Sodium Chloride	5.0 g
Yeast Extract	3.5 g
Charcoal	4.0 g
Agar	18.0 g
Final pH = 7.4 ± 0.2 at 25°C	

• PROCEDURE

Suspend 62.5 G of powder in 890 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 Horse Blood Defibrinated (MB-H1883) and 2 vials of Bordetella supplement (MB-B1813). Mix well. Pour into petri dishes.

Bordetella supplement

1 vial contents (each vial is sufficient for 500 mL of medium)
Cefalexin 0.02 g

• INTERPRETATION

Charcoal Agar is a medium used for the cultivation and isolation of *Bordetella pertussis*. Beef heart infusion, peptone and soluble starch provide nitrogen, carbon, vitamins and minerals for the growth of microorganisms. Sodium chloride maintains the osmotic balance. Yeast extract provides growth factor, vitamins and minerals. Charcoal absorbs toxic compounds and metabolites. Agar is the solidifying agent. Horse blood defibrinated provides nutrients for the growth of bacteria. Bordetella supplement makes the medium more selective.

• TECHNIC

Inoculate the specimen using a sterile loop to the medium. Incubate at 35 ± 2°C for 18 - 72 hours under appropriate condition. Refer appropriate references for recommended test procedure.

• QUALITY CONTROL FOR USE

Dehydrated medium

Appearance: free-flowing, homogeneous

Color: gray

Prepared medium

Appearance: opaque

Color: reddish-black

Incubation conditions: 35 ± 2°C / 18 - 72 hours under appropriate condition

Microorganism	ATCC	Inoculum CFU	Growth
<i>Bordetella bronchiseptica</i>	4617	50-100	good
<i>Klebsiella pneumoniae</i>	13883	≥10 ³	inhibited
<i>Staphylococcus aureus</i>	25923	≥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. Proom (1955) J. Gen. Microbiol. 12: 63.

• PACKAGE

Cat. No : MB-C2140 Charcoal Agar	500 G
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