

Regan-Lowe Charcoal Agar



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

• CONTENTS (Liter)

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|------------------------------|--------|
| Beef Extract | 10.0 g |
| Pancreatic Digest of Gelatin | 10.0 g |
| Soluble Starch | 10.0 g |
| Sodium Chloride | 5.0 g |
| Charcoal | 4.0 g |
| Niacin | 0.01 g |
| Agar | 12.0 g |
| Final pH = 7.4 ± 0.2 at 25°C | |

• PROCEDURE

Suspend 51.01 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. Aseptically add 10% 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

Regan-Lowe Charcoal Agar is a medium used for the isolation and cultivation of *Bordetella pertussis*. Beef extract, pancreatic digest of gelatin and soluble starch provide amino acids, nitrogen, carbon, vitamins and minerals for the growth of microorganisms. Sodium chloride maintains the osmotic balance. Charcoal absorbs toxic compounds and metabolites. Niacin is an essential growth factor for *Bordetella* spp. Agar is the solidifying agent. *Bordetella* supplement makes this medium more selective.

• TECHNIC

Inoculate the plates with spreading the specimen on surface of the medium using a sterile loop. Incubate at 35 ± 2°C for 48 - 72 hours up to 7 days under humid atmosphere. Refer appropriate references for recommended test procedure.

• QUALITY CONTROL FOR USE

Dehydrated medium

Appearance: free-flowing, homogeneous

Color: gray

Prepared medium

Appearance: opaque

Color: black

Incubation conditions: 35 ± 2°C / 48 - 72 hours up to 7 days under humid atmosphere

| Microorganism | ATCC | Inoculum CFU | Growth |
|----------------------------------|-------|------------------|-----------|
| <i>Bordetella bronchiseptica</i> | 4617 | 50-100 | good |
| <i>Bordetella pertussis</i> | 9797 | 50-100 | good |
| <i>Escherichia coli</i> | 25922 | ≥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 or until signs of deterioration or contamination are evident. Store prepared medium at 2 - 8°C.

• REFERENCES

1. Regan, J and Lowe, F.1977 Enrichment medium for the isolation of Bordetella. J. Clin. Microbiol. 6:303-309.
2. Proom (1955) J. Gen. Microbiol. 12: 63-75.

• PACKAGE

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| Cat. No : MB-R0652 Regan-Lowe Charcoal Agar | 500 G |
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