BORDET GENGOU AGAR BASE

INTENDED USE
Remel Bordet Gengou Agar, when enriched with blood, is a solid medium recommended for use in qualitative procedures for the isolation of *Bordetella pertussis* and *Bordetella parapertussis*.

SUMMARY AND EXPLANATION
Whooping cough is caused by *B. pertussis* and *B. parapertussis*, which are among the most fastidious bacteria known and require special culturing techniques. Bordet Gengou Agar was developed in 1906 and originally included 50% blood. Kendrick and Eldering reduced the amount of animal blood to 15% making Bordet Gengou medium more practical for use in the clinical laboratory. In separate studies, Ahmad and Kurzynski reported maximum sensitivity is obtained when Bordet Gengou Agar and a selective charcoal blood agar are routinely used for primary isolation of *Bordetella* spp. Bordet Gengou Agar is recommended by the Pertussis Laboratory at Centers for Disease Control and Prevention (CDC) along with a selective medium to increase the recovery of *Bordetella* spp.

PRINCIPLE
Bordet Gengou Agar is an enriched casein peptone medium with potato infusion and glycerol to supply nutrients which support the growth of *Bordetella* spp. Blood is added to provide additional nutrients and to enable the detection of hemolytic reactions. Sodium chloride maintains osmotic equilibrium.

REAGENTS (CLASSICAL FORMULA)*
- Potato Infusion ................................................................. 5.0 g
- Sodium Chloride ............................................................ 5.0 g
- Meat Peptone .................................................................. 3.0 g
- Casein Peptone ............................................................... 2.0 g
- Agar .................................................................................. 15.0 g
- Demineralized Water ..................................................... 1000.0 ml

pH 6.7 ± 0.2 @ 25°C

*Adjusted as required to meet performance standards.

PRECAUTIONS
This product is For Laboratory Use only. It is not intended for use in the diagnosis of disease or other conditions.

PREPARATION OF DEHYDRATED CULTURE MEDIUM
1. Suspend 30 g of medium in 1000 ml of demineralized water.
2. Add 10 ml of glycerol and mix.
3. Heat to boiling with agitation to completely dissolve.
4. Sterilize by autoclaving at 121°C for 15 minutes or following established laboratory procedures.
5. After medium has cooled to 45-50°C, aseptically add 150 ml of defibrinated animal blood.
6. Mix and dispense into appropriate containers.

PROCEDURE
1. Consult current editions of appropriate references for the recommended procedure for specimen inoculation, testing, and interpretation.

QUALITY CONTROL
Each lot number of Bordet Gengou Agar Base has been manufactured, packaged, and processed in accordance with current Good Manufacturing Practice regulations. All lot numbers have been tested using the following quality control organisms and found to be acceptable. Testing of control organisms should be performed in accordance with established laboratory quality control procedures. If aberrant quality control results are noted, sample results should not be reported.

CONTROL
- *Bordetella pertussis* ATCC® 9340
- *Bordetella pertussis* ATCC® 12742
- *Streptococcus sanguinis* ATCC® 10556

INCUBATION
- Aerobic, up to 5 days @ 33-37°C
- Aerobic, up to 5 days @ 33-37°C
- Aerobic, 18-24 h @ 33-37°C

RESULTS
- Good growth
- Good growth
- Good growth

LIMITATIONS
1. Specimens collected prior to the administration of antibiotics have higher recovery rates for *Bordetella*.

BIBLIOGRAPHY

Refer to the front of Remel Technical Manual of Microbiological Media for General Information regarding precautions, product storage and deterioration, sample collection, storage and transportation, materials required, quality control, and limitations.

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IFU 452432, Revised May 12, 2010