Condalab

Reference: 6015 **Technical Data Sheet**

Product: **BORDETELLA SUPPLEMENT**

CE IVD

Specification

Selective Supplement for the isolation of *Bordetella spp.*

Presentation

	Packaging Details	Shelf Life	Storage
10 Freeze-dried vials Vial with: 6 ± 0,1 ml	22±0.25 x 55±0.5 mm glass vials, tag labelled, White plastic cap - 10 vials per box.	36 months	2-8 ºC

Composition

Compositon (g/vial)

Cephalexin.....0.020

NOTE: Each vial is sufficient to supplemented 500 ml of Bordet-Gengou Agar Base (Cat. 1107).

Reconstitute the original freeze-dried vial
by adding :
Sterile Distilled Water.....5 ml

Description /Technique

Description:

Bordet-Gengou Agar Base(Cat. 1107) is used with the addition of horse blood for isolating *Bordetella pertussis* and other *Bordetella* species.
The genus *Bordetella* consists of 4 species, all being respiratory pathogens: *Bordetella pertussis, B. parapertussis, B. bronchiseptica and B. avium.*
Potato infusion and Proteose peptone provide nitrogen, vitamins, minerals and amino acids essential for growth. Glycerol provides carbon. Sodium chloride supplies essential electrolytes for transport and osmotic balance, and bacteriological agar is the solidifying agent. The addition of blood provides extra growth nutrients for *Bordetella* species. Starch from the potato infusion absorbs fatty acids from nasal secretions on cotton swabs which inhibit growth of *B. pertussis*.

Technique:

Aseptically reconstitute 1 vial with 5 ml of sterile distilled water. Mix gently until complete dissolution and add aseptically to 500 ml of Bordet-Gengou Agar Base (Cat. 1107), autoclaved, cooled to 50 ºC and with 5-10% defibrinated sterile blood added. Mix well and distribute into sterile containers.

Instructions for use:

For clinical diagnosis, the type of sample is bacteria isolated from any clinical sample.
- Inoculate and incubate the plates at 35±2 ºC for 48-72 hours in a humid environment. Use 2 plates per sample: one with supplement, one without.
- After 48-72 hours, colonies of *B. pertussis* are small, white, opaque with an unclear edge as the hemolysis zone merges into medium, smooth, slightly elevated, shiny and less than 1 mm in diameter. They are surrounded by hazy zone of hemolysis.
Colonies of *B. parapertussis* grow faster and at 48 hours are well developed with a similar appearance to *B. pertussis*, giving a green-black tint to the medium. Colonies of Gram positive cocci are usually opaque and darker.
- After 24-48 hours, colonies of *B. bronchiseptica*, grow similar to *B. pertussis* colonies but they are larger with a rough, pitted surface.
- All suspect colonies should be identified by serological methods.

Quality control

Physical/Chemical control

Color : White pH: at 25ºC

Microbiological control

Reconstitute 1 vial as indicated in COMPOSITION; shake and dissolve completely

Inoculate: Practical range 100 ± 20 CFU. min. 50 CFU (productivity)/ 10^4-10^6 (selectivity).

Aerobiosis. Incubation at 35 ± 2 ºC, reading after 48-72 hours

Microorganism	Growth
Bordetella bronchiseptica ATCC® 4617	Good (Gamma hemolysis)

Sterility Control

Add 5ml of the sample to 100 ml of TSB and to 100 ml Thioglycollate.
Incubation 48 hours at 30-35 ºC and 48 hours at 20-25 ºC: NO GROWTH.
Check at 7 days after incubation in same conditions.

Bibliography

MacFaddin, J.F. 1985. Media for isolation-cultivation-identification-maintenance of medical bacteria, vol. 1. Williams & Wilkins, Baltimore, M.D.

Marcon, M.J. 1995. Bordetella, p. 566-573. In P.R. Murray, E.J. Baron, M.A. Pfaller, F.C. Tenover, and R.H. Yolken (ed.), Manual of clinical microbiology, 6th ed. American Society for Microbiology, Washington, D.C.