Bordetella Selective Agar

A Petri Dish containing selective medium for the direct isolation of *Bordetella pertussis*

For in vitro diagnostic use

Cat. No. PD 079
90mm Prepared plates
Pkg.: 10 units in a nylon bag
Expiry Date: Printed on label and on the item

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Storage
Store at 2-8^0 C. Protected from light.

Composition (g/L)
Agar 12; Peptones & salts 15; Special mix 10; Starch 10; Charcoal bacteriological: 4; Nicotinic acid: 0.001.
Defibrinated horse blood
Selective supplement: Cephalexin

Intended Use
Bordetella Selective Agar was developped to provide a non-blood containing medium for the cultivation of *Bordetella pertussis*.

History and Principle
Nicotinic acid is an essential growth factor for bordetellae.Ensminger used a charcoal medium for the growth of *B. pertussis* and found that the medium could replace Bordet-Genou. Mishulow used charcoal agar for *Bordetella pertussis* cultivation.
The greatest problem in the isolation of *B. pertussis* species from naso-pharingeal secretions is the suppression of unwanted flora during the long incubation period on very nutritious medium. Cephalexin antibiotic (40mg / ml) has proved to be the best selective agent to inhibit the unwanted nasopharingeal flora.
The combination of a formulation assuring the optimal recovery of bordetellae, even of the stressed cells, and the addition of the antimicrobial agent to the agar , make the Bordetella Selective Agar plates an excellent transport and selective-recovery medium.

Procedure

1. Collect 2 pernasal swabs, one through each nostril, in the early stage of the ilness.
2. If plates have been refrigerated, allow to return to room temperature before inoculation. Streak sample onto plate and incubate aerobically at 35 ± 2^0 C in an inverted position (agar-side up) in a moist atmosphere, (60-70% humidity), for up to 6 days.

Interpretation of Results

Look for small, shiny, greyish-white, round-convex colonies. Suspicious colonies should be Gram-stained, using a 2-minutes safranin counterstain. Some pleomorphic cells may be seen, caused by the cephalexin in the medium. Confirm the identification.

Procedure Limitations

- It is recommended to use a charcoal based medium for the transport of the specimen. Stuart's transport medium or similar formulation media should not be used for Bordetella-containing specimens.
- Most nasopharingeal flora are inhibited by cephalexin, but *P. aeruginosa* and fungi may grow through.

Disposal

Used contaminated test material should be handled by standard decontamination methods such as autoclaving or incineration.