BORELLI MEDIUM

Tubed and bottled medium for subculture and identification of dermatophytes

INTENDED USE

BORELLI medium is a convenient method for identification of dermatophytes previously cultured on media such as Sabouraud. Observation of sporulation and pigmentation during culture from isolated fungi placed on BORELLI Medium allows identification of species.

PRINCIPLE

Cutaneous mycoses are caused by yeasts or filamentous fungi which have an affinity for keratin. Lesions are confined to the superficial layer of the epidermis, hair, and nails.
Biological diagnosis of mycoses is based on direct examination and sample culture of skin, hair, nails on Sabouraud medium.
The identification of dermatophytes is based on macroscopic and microscopic characteristics of colonies.
However, dermatophytes cultured on Sabouraud medium do not always show all the characteristics that allow species identification. A secondary subculture on a medium such as BORELLI is required in these cases
BORELLI medium contains all the elements necessary for the growth of dermatophytes and for the development of those features that allow species identification.

KIT CONTENT

BORELLI medium is an agar medium packaged in tubes or bottles. After reconstitution the medium can be poured onto Petri dishes. Reconstituted medium is suitable for identification of dermatophyte species.

- Prepared bottled medium, 4 bottles of 50 mL (about 20 tests). Reference borelfl20.
  Prepared tubed medium, 18 tubes of 10 mL (about 18 tests). Reference borelt18.

MATERIAL REQUIRED BUT NOT PROVIDED

- 50 mm Petri dishes
- Water bath
- Scotch®
- Microscope
- Microscope slides (76x26 mm)
- Coverslip
- Lactophenol Cotton blue
- Container for contaminated waste

STORAGE CONDITIONS

Stored at + 12°C to +37°C, medium is stable until the expiry date indicated on the box
Do not freeze. Keep the medium below +37°C. Do not keep in intense light.

WARNINGS AND PRECAUTIONS

- For in vitro diagnostic use.
- Only for professional use.
- Do not interchange medium from different kit lots.
- Follow the instructions for use.
- In case of accidental spill of reagent, clean the surface with absorbent paper, bleach and rinse with water. In case of environmental contamination with culture samples clean with bleach and absorbent paper.
- The samples, reagents as well as the contaminated materials and products must be disposed of in a container for contaminated waste, according to the prevailing recommendations and regulations.
- Do not use tubed or bottled medium if they show evidence of microbial contamination.

MEDIUM PREPARATION

- Partially unscrew cap on tube or bottle and put it in a water bath. Media should be heated in the water bath to ensure complete dissolution. Persistence of medium components in suspension is normal.
- Remove tube or bottle from the water bath, screw cap on tube or bottle.
- Dry tube or bottle and thoroughly homogenise the content of tube or bottle by reversal.
- Dispense bottled BORELLI medium into Petri dishes. Volume should be about 10 mL in a 50 mm dish. Allow the medium to solidify before use. Prepared dishes, sealed in small plastic bags or wrapped with transparent cellophane adhesive (eg Parafilm®) can be stored at +2°C to +8°C for up to 2 weeks.
- Tubed BORELLI medium reconstituted may be placed in an inclined (20°) position or dispensed to 50 mm Petri dishes. Allow to solidify before use.

TEST PROCEDURE

For the subculture push the sample obtained from a colony into BORELLI agar. Temperature and incubation period vary from species to species.
It is advisable to incubate the cultures at +20°C to +25°C for 1 to 4 weeks. Microscopic examination of sample for identification of species is performed when the size of colony is satisfactory.
The cellotape (Scotch® tape) flag and the lactophenol Cotton blue mount may be used for microscopic observation of the colony morphology.

The identification of dermatophyte is based on macroscopic aspects of colonies (downy, powdery...), colonies colour (white, fawn…), colonies pigmentation (red, wine-red, yellow-brown …) and on microscopic characteristics (aspect, shape, morphology of the microconidia and/or macroconidia, appendages such as spiral hyphae…).
Standards characteristics specified in literature must be used to identify species of dermatophytes.

PERFORMANCES

A study of 43 dermatophytes isolates has shown that BORELLI medium allows growth of all isolates. Species identification of dermatophytes has been done on the basis of macroscopic and microscopic characteristics. Identification of dermatophytes species was obtained for 40 dermatophytes isolates i.e. 93%.

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