# Derma-SR-screen

**Device for terbinafine and itraconazole susceptibility screening of dermatophytes**

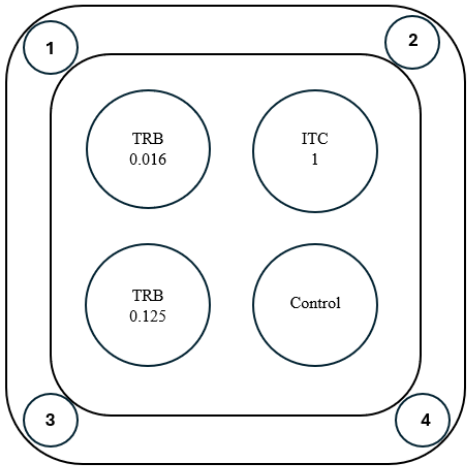
## DESCRIPTION

Derma-SR-screen is a 4-well panel containing the antifungals incorporated into an agar medium in different concentrations. **Terbinafine** is present in two different concentrations 0.016 mg/L and 0.125 mg/L whereas **Itraconazole** is present in a concentration of 1 mg/L.

## KIT CONTENT

- 6 panels of Derma-SR-screen (individually packed in plastic bag)
- 1 Instructions Sheet

## CONFIGURATION




TRB= Terbinafine ITC= Itraconazole
Growth-control: No antimicrobial agent in the well

## ITEMS NECESSARY BUT NOT INCLUDED IN THE KIT

- 0.5 McFarland turbidity standard
- Swabs
- Test tubes
- Syringe
- Sterile water with 0.1 % Tween-20
- Filter (11 mm of pore diameter)
- Vortex

## PRINCIPLE OF THE METHOD

All wells are inoculated with a standardized microbial suspension. After incubation, observe the growth in the well.

## COLLECTION AND STORAGE OF THE SAMPLE

Derma-SR-screen is not for use directly with clinical or other specimens. The microorganism to be tested must be a pure culture on a dermatophyte culture medium supplemented with cycloheximide and chloramphenicol. In case of mixed culture, selected colonies should be purified by subculturing.

## TEST PROCEDURE

1. Take a panel from its envelope and leave it at room temperature for 10 min.
2. Prepare a suspension of the test organism:
   Colonies are covered with approximately 5 mL of sterile water supplemented with 0.1% Tween 20. Then, the microconidia are carefully rubbed from the colony surface with a sterile cotton swab and the resulting suspension is transferred with a pipette to a sterile tube. Alternatively, a damp sterile cotton swab could be used to gently touch the culture, and the microconidia transferred to a sterile tube containing 5 mL water supplemented with 0.1% Tween-20. The suspension is vortexed for 15 seconds with a gyratory vortex mixer at approximately 2,000 rpm and transferred to a sterile syringe attached to a sterile filter with a pore diameter of 11 mm, filtered and collected in a sterile tube. This step removes hyphae and yields a suspension composed of microconidia.
3. Standardize the suspension to the density of a McFarland 0.5 standard.
4. Inoculate the positive control well first and then, the other wells containing the different antifungals concentrations.
   Dispense 25 µL of the inoculum solution over the agar surface into each well.
5. Following this, the Derma-SR-screen is left on the bench for 15 min for full absorption of the liquid in the agar before moving the plate to the incubator.
6. Cover the panel with the lid provided and incubate under humid conditions to avoid evaporation during the prolonged incubation time. For dermatophytes (QC or Clinical Isolates), the plates are read after 5-7 days incubation at 25°C-28°C in ambient air (depending on when “good” growth is present on the growth control agar).

## READING THE RESULTS

At the end of the incubation period observe the growth in the wells. The results are read visually.
**Note:** Ensure that the panel is properly positioned before reading the results. See CONFIGURATION above.

The growth-control well should be evaluated first. Make sure it is positive for growth. If not, check the viability of the colonies picked and repeat the test using a new panel and a microbial culture of recent growth.

## USER QUALITY CONTROL

Quality control of Derma-SR-screen is performed using the following reference strains:

| Control strains | TRB 0.016 (µg/mL) | TRB 0.125 (µg/mL) | ITC 1 (µg/mL) | Growth Control |
|---|---|---|---|---|
| *T. indotineae* (formerly *T. interdigitale*) CCUG 74948 | (+) | 0 | 0 | +++ |
| *T. rubrum* CCUG 74971 | 0 | 0 | 0 | +++ |

## FACTOR THAT MAY INVALIDATE THE RESULTS

Contaminated culture; poor standardization of the inoculum; clinical material unsuitable; use of expired panels or expired supplementary reagents; no compliance with temperatures and times of incubation.

## PRECAUTIONS

The product Derma-SR-screen does not contain hazardous substances in concentrations exceeding the limits set by current legislation and therefore is not classified as dangerous. It is nevertheless recommended to consult the safety data sheet for its correct use. Agar Dermatophytes screening is a disposable device for professional use only. The product must be used in the laboratory by properly trained personnel, using approved aseptic and safety methods for handling pathogenic agents.

## STORAGE

Store Derma-SR-screen at 2-8°C in the original packaging. Keep away from direct sunlight and direct heat. Do not use the panels beyond the expiry date indicated on the label. Discard without using if there are signs of deterioration.

## DISPOSAL OF USED MATERIAL

After use, Derma-SR-screen and material that has come into contact with the sample must be decontaminated and disposed of in accordance with guidelines used in the laboratory for decontamination and disposal of potentially infected material.

## REFERENCES

1. Siopi M, Efstathiou I, Arendrup MC, Meletiadis J. Development of an agar-based screening method for terbinafine, itraconazole, and amorolfine susceptibility testing of *Trichophyton* spp. J Clin Microbiol. 2024

| Product | Packaging | Ref. |
|---|---|---|
| Derma-SR-screen | 6 tests | 77065 |

## TABLE OF SYMBOLS

| | | | | |
|---|---|---|---|---|
| **LOT** Batch code | Do not reuse | Manufacturer | Contains sufficient for <n> tests | Temperature limits |
| **REF** Catalogue number | Fragile, handle with care | Use by | Caution, consult accompanying documents | Consult instructions for use |

RUO

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