
Lab Dept: Microbiology/Virology

Test Name: DERMATOPHYTE CULTURE

General Information

Lab Order Codes: DTMC

Synonyms: Culture, Fungus for Dermatophytes Only; Fungus Culture for Dermatophytes Only; Culture, Dermatophyte

CPT Codes: 87101 - Culture, fungi isolation, with presumptive identification of isolates; skin, hair or nail

Test Includes: Selective isolation and presumptive identification of dermatophytes from skin, hair and nails.

Logistics

Lab Testing Sections: Microbiology

Phone Numbers: MIN Lab: 612-813-5866

STP Lab: 651-220-6555

Test Availability: Daily, 24 hours

Turnaround Time: Positive results are reported when detected. Negative cultures are final after 2 weeks.

Special Instructions: **Specific site** and **date/time of collection** are required for specimen processing. Note any antifungal therapy taken recently.

Specimen

Specimen Type: Hair, nails or skin

Container: **Onsite collections:** Sterile container or Dermatophyte Test Medium (available in Microbiology)

Offsite collections: Sterile container

Volume: As much as possible, enough scrapings to cover the head of a thumbtack.

Collection: A Wood's lamp is useful in the collection of specimens in tinea capitis infections, since hairs infected by most members of the genus *Microsporum* frequently exhibit fluorescence under a Wood's lamp. However, in tinea capitis due to *Trichophyton* species, infected hairs do not fluoresce.

Hair:

1. With forceps, collect at least 10 - 12 affected hairs with the base of the shaft intact.
2. Implant on the surface of dermatophyte test medium (DTM) or place in a sterile container.

Nails:

1. Remove nail polish.
2. Wipe nail with 70% alcohol using gauze (not cotton).
3. Clip a generous portion of the affected area and collect scrapings of the excess keratin produced under the nail.
4. Implant on the surface of DTM or place in a sterile container.

Skin:

1. Cleanse the affected area with 70% alcohol.
2. Gently scrape the surface of the skin at the active margin of the lesion. **Do not** draw blood.
3. Scrape sample directly into DTM and implant. If DTM is unavailable, place sample in a sterile container or between 2 clean, glass slides. Tape the slides together before transporting.

Transport/Storage: **Onsite collections:** Transport to the Microbiology Laboratory immediately.

Offsite collections: Do not refrigerate, store at room temperature. Specimens must be promptly transported to the laboratory, with the next available courier, not to exceed 24 hours from the time of collection. However, delayed transport causes a delay of test results.

Sample Rejection: Specimen not submitted in appropriate transport container; improperly labeled specimen; insufficient volume; external contamination. If an unacceptable specimen is received, the physician or nursing station will be notified and another specimen will be requested before the specimen is discarded.

Interpretive

Reference Range: No dermatophytes isolated after 2 weeks.

Limitations: A single negative culture does not rule out fungal infection.

Methodology: Dermatophyte Test Medium (DTM)

References:

Cook, JH, and M Pezzlo (1992). Specimen receipt and accessioning. Section 1. Aerobic bacteriology, 1.2.1-4. In HD Isenberg (ed) Clinical Microbiology Procedures Handbook. American Society for Microbiology, Washington DC

Miller, J Michael (1999) A Guide To Specimen Management in Clinical Microbiology, American Society for Microbiology, Washington DC

Miller, J Michael, and HT Holmes (1999) Specimen Collection, Transport, and Storage In PR Murray et al, (ed), Manual of Clinical Microbiology, 7th edition, American Society for Microbiology, Washington DC, pp 33-104

Updates:

8/7/13: Removed transport >2 hours as a reason for specimen rejection.

11/11/14: Offsite collections added.