
Lab Dept: Microbiology/Virology

Test Name: FUNGAL CULTURE (NON-BLOOD)

General Information

Lab Order Codes: FUNG

Synonyms: Culture, Fungus

CPT Codes: 87102 – Culture, fungi isolation, with presumptive identification of isolates; other source, except blood

The following testing may be added if appropriate based on findings for organism identification (multiple additions are possible if more than one organism is identified) and to aid in patient treatment management.

87106 – Culture, fungi definitive identification, each organism; yeast (if appropriate)

87107 – Culture, fungi definitive identification, each organism; mold (if appropriate)

87077 – Aerobic isolate, additional methods required for definitive identification, each isolate (if appropriate)

87181 – Susceptibility studies, E Test, per drug (if appropriate)

87184 – Susceptibility studies, disk method, per plate (if appropriate)

87186 – Susceptibility studies, microdilution or agar dilution, each multi-antimicrobial, per plate (if appropriate)

Test Includes: Culture for yeast and filamentous fungi, identification and antifungal susceptibility testing as required. Physician or nursing unit will be notified of systemic fungal isolates from significant body sites.

Logistics

Lab Testing Sections: Microbiology

Referred to: Fairview University Diagnostic Laboratories

Phone Numbers: MIN Lab: 612-813-5866

STP Lab: 651-220-6555

Test Availability: Daily, 24 hours

Turnaround Time: Preliminary reports are available at 1, 2 and 3 weeks; negative results are reported within 4 weeks.

Special Instructions:

- **Specimen site** and **date/time of collection** are required for processing.
 - **Indicate organism suspected or relevant clinical history on requisition.**
 - For genital sources/urine, **See [Yeast Only Culture](#)**
 - This procedure **does not** include blood or bone marrow specimens. Refer to separate listings [Blood Culture, Fungus](#) and [Bone Marrow Culture, Fungus](#).
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Specimen**Specimen Type:**

Respiratory sources, tissue, pus, granules, hair, skin, nails, corneal scrapings, CSF, or other body fluids. For genital sources, urine, blood or bone marrow specimens, see separate listings.

Container:

Sterile container or swab transport system

Volume:

Visible material, 1 mL of body fluid

Collection:

Swabs are not encouraged; however certain body sites, such as the ear canal, nasopharynx and throat are not readily collected by other means.

Body fluids:

1. Collect aseptically and place in sterile container.

Bronchoscopy:

1. Specimen obtained by physician through the biopsy channel of the bronchoscope.
2. Transfer specimen into a sterile container.

Bronchial brush:

1. Place brush into a sterile container with 1.0 mL of saline.

Corneal scraping (Onsite collections ONLY):

1. Procedure performed by ophthalmologist.
2. Contact Microbiology for media for direct inoculation.
3. Direct culture inoculation: BHI with 10% sheep blood, Chocolate agar, and SABS.
4. Deliver to lab ≤15 min at room temperature.

Pus, Exudate or Drainage:

1. Using a sterile needle and syringe, aspirate material from undrained abscesses.
2. Place in a sterile container.

Sputum (expectorate):

1. Collect early morning specimen under the direct supervision of a nurse or a physician.
2. Have patient rinse or gargle with water to remove superficial flora.
3. Instruct patient to cough deeply to produce a lower respiratory

specimen.

4. Place in a sterile container.

5. Exam specimen to make sure it contains thick mucus. Do not submit saliva.

Sputum (induced):

1. Have patient rinse mouth with water after brushing gums and tongue.

2. With the aid of a nebulizer, have patients inhale ~25 mL of 3 to 10% sterile saline.

3. Collect the induced sputum in a sterile container.

4. Do not submit saliva.

Tissue:

1. Submit in sterile container.

2. For small samples, add a few drops of sterile saline to keep moist.

3. **Do not** allow tissue to dry out.

4. The portion of the biopsy specimen submitted for culture should be separated from the portion submitted for histopathology by the surgeon or pathologist.

Hair:

1. With forceps, collect at least 10 - 12 affected hairs with the base of the shaft intact.

2. Place in 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. Place in 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. Place scrapings between two clean glass slides.

Transport/Storage:

Onsite collections: Transport to the Microbiology Laboratory immediately.

Offsite collections: Do not refrigerate, store at room temp. 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.

Special Processing:	<p>If processing is to be delayed, store specimens as follows:</p> <ul style="list-style-type: none"> ● CSF: Room temperature (4°C, if Cryptococcal antigen is requested) ● Dermatological specimens: Room temperature ● Tissue: 4°C, do not store more than 8 hours until processing ● All other specimens: 4°C <p>Process specimens as soon as possible after collection. Viability can be significantly decreased for <i>Histoplasma capsulatum</i>, <i>Coccidioides immitis</i>, <i>Blastomyces dermatitidis</i>, <i>Rhizopus</i> sp., and <i>Aspergillus fumigatus</i> when stored at RT or 4°C, especially if the specimens harbor relatively few fungal cells.</p>
Sample Rejection:	<p>Improperly labeled specimen; specimens with prolonged transit time (see Transport/Storage for requirements); specimen not submitted in appropriate transport container; 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.</p>

Interpretive

Reference Range:	No fungus isolated
Critical Values:	<p>Isolation of <i>Cryptococcus neoformans</i>, <i>Coccidioides immitis</i>, <i>Histoplasma capsulatum</i>, <i>Blastomyces dermatitidis</i>, <i>Sporothrix schenckii</i>, and other fungi in significant body sites and clinical situations. The physician or patient's nurse will be notified if a systemic fungus is isolated.</p>
Limitations:	A negative culture does not rule out the presence of a fungal infection.
Methodology:	Culture
References:	<p>University of Minnesota Physicians, Outreach Laboratories 2002 – 2003 Guide, p 125</p> <p>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</p> <p>Miller, J Michael (1999) A Guide To Specimen Management in Clinical Microbiology, American Society for Microbiology, Washington DC</p> <p>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</p>

Updates:

3/24/2010: CPT updates

11/18/2013: Genital and Urine specimens are no longer tested by this method.

11/12/2014: Offsite collection information added.

11/3/2015: CPT updates