
Lab Dept: Microbiology/Virology

Test Name: TISSUE CULTURE AND GRAM STAIN

General Information

Lab Order Codes: TISC

Synonyms: Culture, Tissue; Culture, Biopsy; Biopsy Culture

CPT Codes: 87176 – Homogenization, tissue, for culture
87070 – Culture, bacterial; any other source except urine, blood or stool, with isolation and presumptive identification of isolates
87205 - Smear, primary source with interpretation; Gram or Giemsa stain for bacteria, fungi or cell types
87075 – Culture, bacterial; any source, except blood, anaerobic with isolation and presumptive identification of isolates

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.

87076 – Anaerobic isolate, additional methods required for definitive identification of isolates
87077 – Aerobic isolate, additional methods required for definitive identification, each isolate (if appropriate)
87106 – Culture, fungi, definitive identification, each organism, yeast (if appropriate)
87107 – Culture, mold, definitive identification, each organism, mold (if appropriate)
87147 – Culture, typing; immunologic method, other than immunofluorescence (e.g., agglutination grouping), per antiserum (if appropriate)
87184 – Susceptibility studies, disk method, per plate (if appropriate)
87185 – Enzyme detection (eg, beta lactamase), per enzyme (if appropriate)
87186 – Susceptibility studies, microdilution or agar dilution, each multi-antimicrobial, per plate (if appropriate)
87206 – Smear, primary source with interpretation, fluorescent and/or acid fast stain for bacteria, fungi or cell types (if appropriate)

Test Includes: Gram stain and culture for aerobes and less fastidious anaerobes. All aerobic organisms will be identified. Anaerobic organisms will be characterized or identified depending on the nature of the culture.

Logistics

Lab Testing Sections: Microbiology

Phone Numbers: MIN Lab: 612-813-5866

STP Lab: 651-220-6555

Test Availability:	Daily, 24 hours
Turnaround Time:	Preliminary report available at 1 day, final report within 2 - 5 days.
Special Instructions:	<ul style="list-style-type: none">• Specific site and date/time of collection are required for specimen processing.• For isolation of fastidious anaerobes, refer to Anaerobic Culture.• Cultures for Helicobacter pylori culture and/or susceptibility testing will be referred to Fairview Medical Labs. Please order this test as a Miscellaneous Battery.• If a <i>Mycobacterium</i> species (AFB, TB) or fungus is suspected, request AFB Culture or Fungal Culture.

Specimen

Specimen Type:	Tissue
Container:	Sterile container
Volume:	1 gram tissue
Collection:	<p>Tissue:</p> <ol style="list-style-type: none">1. Submit in sterile container.2. For small samples, add a few drops of sterile saline to keep moist. Do not allow tissue to dry out.3. The portion of the biopsy specimen submitted for culture should be separated from the portion submitted for histopathology by the surgeon or pathologist.
Transport/Storage:	<p>Onsite collections: Transport to the Microbiology Laboratory ≤15 min at room temperature</p> <p>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.</p> <p>Note: Refrigeration inhibits the viability of certain anaerobic organisms</p>
Sample Rejection:	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.

Interpretive

Reference Range:	No growth
Alert Value:	<ul style="list-style-type: none"> • Gram-negative rods identified as ESBL or Carbapenemase producers will be called to the physician or patient's nurse. Infection Prevention will be notified. • If MRSA is isolated for the first time, and the patient location is not Emergency department, the result will be called to the physician or patient's nurse. • Any culture positive for potential agents of Bioterrorism – <i>Bacillus anthracis</i>, <i>Brucella</i>, <i>Burkholderia mallei/pseudomallei</i>, <i>Francisella tularensis</i>, or <i>Yersinia pestis</i> will be called to Infectious Disease and/or Infection Prevention. • If Group A <i>Streptococcus</i> is isolated, the result will be called to the physician or patient's nurse. • If any acid-fast bacilli is isolated, the result will be called to the physician or patient's nurse.
Limitations:	Specimens are routinely screened for rapid growing anaerobes (e.g., <i>Bacteroides fragilis</i> group, <i>Clostridium perfringens</i> , <i>Fusobacterium</i> , and anaerobic gram-positive cocci). If an anaerobic infection is suspected, refer to separate listing for Anaerobic Culture .
Methodology:	Culture
References:	<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:	<p>3/23/2010: CPT Updates</p> <p>3/7/2011: CPT Updates</p> <p>4/25/2012: Addition of Critical and Alert values.</p> <p>6/20/2012: Alert value amended, critical value removed.</p> <p>11/20/2014: Offsite information added.</p>