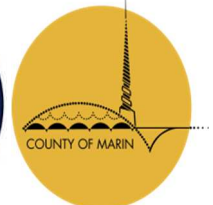


**NAPA-SOLANO-YOLO-MARIN COUNTY
PUBLIC HEALTH LABORATORY**
2201 COURAGE DRIVE, MS 9-200
FAIRFIELD, CA 94533
(707) 784-4410 FAX (707) 423-1979



Test	Acid Fast Smear and Culture
Test Description	<p>The Acid Fast Smear and Culture tests involve the screening of fluids and tissues from miscellaneous body sites for the presence of mycobacteria, including <i>Mycobacterium tuberculosis complex</i>.</p> <p>Acid-fast smears are made after processing the specimen and detect the presence of bacteria with large amounts of lipids in the cell wall. The acid-fast stain is not specific for mycobacteria since other microorganisms can stain positively; also, the stain cannot differentiate <i>Mycobacterium tuberculosis</i> from nontuberculous mycobacteria. If detected, acid-fast bacilli are enumerated. The smear result is typically reported within 1 business day after specimen receipt.</p> <p>Acid-fast culture further monitors for the growth of mycobacteria over an 8-week period and is more sensitive than the smear because it can detect very small numbers of mycobacteria in a clinical sample. Mycobacteria that grow on culture media will typically be identified to the species level using High Performance Liquid Chromatography (HPLC). Antibiotic susceptibility testing and genotyping (<i>Mycobacterium tuberculosis complex</i> only) are performed by request; both tests require referral to other laboratories.</p>
Acceptable specimens and collection information	<ol style="list-style-type: none"> 1. Sputum—expectorated or induced An early-morning sputum should be collected on three consecutive days. A volume of 5–10 ml should be collected. The minimum acceptable volume is 1 ml. Specimens consisting of saliva only will have low sensitivity. 2. Urine First morning clean catch urines are the specimen of choice. 24-hour collections are not acceptable. The minimum acceptable volume is 10 ml. 3. CSF The minimum acceptable volume is 1 ml. Volumes less than 5 ml limit the usefulness of a smear. 4. Other sterile body fluids The recommended collection volume is 5–15 ml. The minimum acceptable volume is 1 ml.

	<p>5. Abscess aspirate The recommended collection volume is 5–15 ml. The minimum acceptable volume is 1 ml.</p> <p>6. Tissue At least 1 gram of tissue is recommended, although smaller quantities can be tested. Do not immerse in saline or other liquids or wrap in gauze.</p> <p>7. Stool At least 2 grams of formed specimen or 1–5 ml of liquid specimen is recommended. Stool specimens should be collected into a sterile container without preservative.</p> <p>8. Gastric lavage The minimum acceptable volume is 1 ml.</p> <p>9. Blood 5 ml of whole blood should be collected in a BACTEC Myco/F Lytic tube. AFB smears are not performed directly from blood. The minimum acceptable volume is 1 ml.</p> <p><i>Note: Except for blood (which is collected in the BACTEC Myco/F Lytic tube), specimens should be collected in a sterile container. Specimens that have leaked from their collection container or that have less than the minimum acceptable volume will be rejected.</i></p>
Specimen storage	Specimens, except for blood, should be stored refrigerated at 2–8°C. Blood in a BACTEC Myco/F Lytic tube should be kept at room temperature or at 35°C.
Specimen shipping	Specimens, except for blood and gastric lavage specimens, should be shipped refrigerated and received by the laboratory to ensure that processing can occur within 7 days from the time of collection. Blood in a BACTEC Myco/F Lytic tube should be shipped at room temperature and received within 1 day from the time of collection. Gastric lavage specimens should be shipped refrigerated and must be received by the laboratory within 4 hours of collection for immediate processing.
CPT code	87015 and 87206 (smear), 87116 (culture)
Test fee	Refer to the posted fee schedule
Result availability (turnaround time)	Smear results are typically reported within 1 business day after specimen receipt. Positive culture results are faxed to submitters upon first detection and identification over the 8-week culture period. Negative specimens require 8 weeks for culturing to be completed. Please allow for at least 1 month for susceptibility testing results after an acid-fast organism is successfully isolated. Time to isolation varies depending on the extent of bacterial contamination in the specimen, the growth characteristics of the organism, and other factors.