

TEST CHANGE

Acid-Fast Bacillus (AFB) Culture and AFB Stain with Reflex to *Mycobacterium tuberculosis* Complex Detection and Rifampin Resistance by PCR

0060738, MC AFBR

Specimen Requirements:

Patient Preparation:	Three sputum specimens should be collected at 8-24 hour intervals (24 hours when possible) and at least one first-morning specimen. An individual order must be submitted for each specimen.
Collect:	Respiratory specimen, pleural fluid, CSF, tissue, gastric aspirate, <u>or urine</u> .
Specimen Preparation:	Transfer (for each collection) 5-10 mL specimen or visible tissue to a sterile container, 50 ml sterile specimen transport tube preferred (cClient supply number # 29582). (Min: 1 mL) Place each specimen in an individually sealed bag.
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Multiple same-site specimens (more than one in 24 hours), dry material, or material collected and transported on a swab.
Remarks:	Specimen source required.
Stability:	Ambient: 24 hours; Refrigerated: 1 week; Frozen: Unacceptable
Methodology:	Stain / Culture / Matrix-Assisted Laser Desorption Ionization-Time of Flight (MALDI-TOF) Mass Spectrometry / 16S rDNA Sequencing / Polymerase Chain Reaction (PCR) / Broth Microdilution

Note:

Respiratory specimens under 5 mL are suboptimal and may compromise recovery of AFB from culture. Stain may not be performed on low volume samples.

Eswabs are considered suboptimal and may have reduced sensitivity for AFB diagnosis.

Preferred acceptable specimens: Tissue, pus, drainage, or wound aspirates submitted in sterile containers, or urine. Please submit an Eswab specimen only when tissue biopsy or fluid aspiration is not feasible for specimens collected surgically. Eswabs are not acceptable for respiratory fluid specimens (e.g., eg, sputum) and body fluids, and testing will be canceled.

Positive cultures are reported as soon as detected. AFB stain, AFB identification of positives, and susceptibility tests are billed separately from culture. Identification of positive culture is billed by matrix-assisted laser desorption ionization (MALDI),

PCR, and/or sequencing tests performed.

The laboratory should be notified when the presence of *Mycobacterium genavense* or *Mycobacterium haemophilum* is suspected, as these organisms will not grow on media routinely used for *Mycobacterium* isolation.

The laboratory should be notified when *M. xenopii* is suspected, as this organism requires a different temperature from routine culture setup.

The laboratory should be notified if the specimen is from a **patient with** cystic fibrosis ~~patient~~, as these specimens need additional decontamination from routine culture setup.

Susceptibility will be performed on organisms isolated from a sterile source and isolates of *Mycobacterium tuberculosis* complex, *M. chelonae*, *M. abscesses*, *M. fortuitum* complex, *M. immunogenum*, *M. mucogenicum*. Susceptibility testing will be performed by request only on *M. kansasii* and *M. marinum*. Susceptibility testing of *M. gordonae* is inappropriate.

For AFB susceptibility information, refer to Antimicrobial Susceptibility - AFB *Mycobacteria* (ARUP test code 0060217).

For AFB culture on blood refer to Culture, Acid-Fast Bacillus, Blood (ARUP test code 0060060).

After a positive result, repeat orders for *Mycobacterium tuberculosis* Complex Detection and Rifampin Resistance by PCR will continue to yield a positive result and repeat testing is not clinically indicated.

CPT Codes:	87116; if reflexed, add 87564; If concentration and stain apply, 87206 and 87015 will be added. CPT codes for identification and susceptibility vary based on method.
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New York DOH Approval Status:	This test is New York DOH approved.
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Interpretive Data:

Identification ordered and performed on positives.

Susceptibility performed on all initial isolates of *M. tuberculosis* complex.

Susceptibility performed on *Mycobacterium* other than *M. tuberculosis* complex isolates by request only.

Susceptibility testing of *M. gordonae* is inapp**ro**priate.

Reference Interval:

