

***Mycobacterium tuberculosis* complex drug susceptibility**

Test Description	Drug susceptibility testing of <i>Mycobacterium tuberculosis</i> complex isolates to the anti-tuberculous drugs streptomycin, isoniazid, rifampin, ethambutol, and pyrazinamide; referral of isolates to the Centers for Disease Control and Prevention (CDC), if indicated, for additional drug testing.
Test Use	To inform effective drug therapy decisions in patients diagnosed with tuberculosis
Test Department	Mycobacteriology Laboratory Phone: (860) 920-6649 FAX: (860) 920-6721
Methodology	BACTEC™ MGIT™ 960 DST
Availability	Daily, Monday-Friday. Results available 14-21 days from identification of <i>M. tuberculosis</i> complex in culture.
Specimen Requirements	Pure culture isolate of <i>M. tuberculosis</i> complex on solid, or in liquid media commonly used for the isolation of mycobacteria, such as Lowenstein-Jensen (LJ), Middlebrook, or media from automated test systems.
Collection Kit/Container	Follow applicable federal regulations for packaging of infectious substances.
Specimen Handling & Transport	Transport cultures to the laboratory at ambient temperature. Avoid temperature extremes. Cultures suspected to contain <i>M. tuberculosis</i> must be packaged and shipped in accordance with "Category A Infectious Substances" guidelines.
Unacceptable Conditions	Unlabeled specimen Specimens that have leaked or containers that have broken in transit Cultures mixed with non-tuberculous mycobacteria or non-acid fast bacteria
Requisition Form	Clinical test requisition (select AFB Referred Culture). Drug susceptibility testing is automatically performed on all initial patient isolates of <i>M. tuberculosis</i> complex. Pre-approval from the Mycobacteriology Laboratory or the TB Control Program (860-509-7722) is required for drug susceptibility testing on subsequent isolates.
Required Information	Name and address of submitter (and/or Horizon profile #) Patient name or identifier, date of birth, town of residence (city, state, zip) Specimen type or source of collection, test requested Please ensure patient name on requisition matches that on the specimen.
Limitations	Susceptibility testing of non-tuberculous mycobacteria is not done. Drug susceptibility tests cannot be done on cultures mixed with non-tuberculous mycobacteria or other bacteria.
Additional Comments	<ul style="list-style-type: none"> • Drug resistant isolates of <i>M. tuberculosis</i> complex (MTBC) are sent to CDC for confirmation of resistance by the Indirect Agar Proportion Method. The specific first and second-line drug panels are determined by the initial BACTEC™ MGIT™ 960 results. This testing requires a minimum of 21 days from initiation of testing by CDC. • MTBC isolates resistant to at least rifampin and isoniazid are automatically forwarded to CDC for Molecular Detection of Drug Resistance (MDDR) testing. This test is also available upon request. The suitability for such testing must be determined by consultation with the Mycobacteriology Laboratory or the TB Control Program (860 509-7722)

