MAYO CLINIC LABORATORIES

Test Definition: MMLRG

Antimicrobial Susceptibility, Acid-Fast Bacilli, Rapidly Growing, Varies

Overview

Useful For

Determination of susceptibility of rapidly growing mycobacteria to the antimicrobial agents on the test panel

Additional Tests

Test Id	Reporting Name	Available Separately	Always Performed
SRG	Susceptibility Rapid Grower	No, (Bill Only)	Yes

Testing Algorithm

When this test is ordered, rapid grower susceptibility will be performed at an additional charge.

Special Instructions

- Infectious Specimen Shipping Guidelines

Method Name

Minimum Inhibitory Concentration (MIC) by Microtiter Broth Dilution Method

NY State Available

Yes

Specimen

Specimen Type

Varies

Additional Testing Requirements

If organism identification is not provided, CTB / Mycobacteria and *Nocardia* Culture, Varies or CTBID / Culture Referred for Identification, *Mycobacterium* and *Nocardia*, Varies **must also** be ordered and will be charged separately.

Shipping Instructions

1. For shipping information see Infectious Specimen Shipping Guidelines
2. Place specimen in a large infectious container and label as an etiologic agent/infectious substance.

Necessary Information

1. Specimen source is required.

2. Organism identification is required unless either CTB / Mycobacteria and *Nocardia* Culture, Varies or CTBID / Culture Referred for Identification, *Mycobacterium* and *Nocardia*, Varies is also ordered.

3. Identification to the species level is required for *Mycobacterium* species for the correct antimicrobial susceptibility drug panel to be selected. Identification to the genus level is sufficient for *Nocardia* species and other aerobic actinomycetes (eg, *Gordonia* species, *Rhodococcus* species).

Specimen Required

Specimen Type: Organism
Supplies: Infectious Container, Large (T146)
Container/Tube: Middlebrook 7H10 agar slant or other appropriate media
Specimen Volume: Pure isolate
Collection Instructions: Organism must be in pure culture, actively growing.

Forms

If not ordering electronically, complete, print, and send a Microbiology Test Request (T244) with the specimen.

Specimen Minimum Volume

See Specimen Required

Reject Due To

Agar plate	Reject

Specimen Stability Information

Specimen Type	Temperature	Time	Special Container
Varies	Ambient (preferred)		
	Refrigerated		

Clinical & Interpretive

Clinical Information

There are more than 100 species of rapidly growing mycobacteria and many are significant human pathogens (eg, *Mycobacterium abscessus*, *Mycobacterium chelonae*, *Mycobacterium fortuitum*). Rapidly growing mycobacteria cause a variety of infections including pulmonary infections, skin and soft tissue infections, and disseminated disease. Antimicrobial susceptibility testing of clinically significant rapidly growing mycobacteria is important to help guide patient care.

Antimicrobials tested in this assay are amikacin, cefoxitin, ciprofloxacin, clarithromycin, clofazimine, doxycycline, imipenem, linezolid, moxifloxacin, tigecycline, tobramycin, and trimethoprim/sulfamethoxazole.

Reference Values

Interpretive criteria and reporting guidelines are followed using the Clinical Laboratory Standards Institute (CLSI) M24S document.

Interpretation

Results are reported as the minimum inhibitory concentration in micrograms/mL. Interpretive criteria (susceptible, intermediate, or resistant) are reported according the Clinical and Laboratory Standards Institute guidelines.

Clinical Reference

1. Brown-Elliott BA, Pilley JV. Rapidly growing mycobacteria. Microbiol Spectr. 2017;5(1):1-19
2. Apiwattankul N, Flynn PM, Hayden RT, Adderson EE. Infections caused by rapidly growing mycobacteria spp in children and adolescents with cancer. J Pediatric Infect Dis Soc. 2015;4(2):104-113
3. Kasperbauer SH, De Groote MA. The treatment of rapidly growing mycobacterial infections. Clin Chest Med. 2015;36(1):67-78

Performance

Method Description

The method employed in this assay is broth microtiter dilution using a commercially available RAPMYCO2 plate. Antimicrobials included in the assay are tested according to CLSI guidelines.(Clinical and Laboratory Standards Institute [CLSI]. *Susceptibility Testing of Mycobacteria,* Nocardia *spp., and Other Aerobic Actinomycetes.* CLSI standard M24. Clinical and Laboratory Standards Institute [CLSI]. *Performance Standards for Susceptibility Testing of Mycobacteria,* Nocardia *spp., and Other Aerobic Actinomycetes*. CLSI supplement M24S)

PDF Report

No

Day(s) Performed

Monday through Sunday

Report Available

12 to 28 days

Specimen Retention Time

2 years

Performing Laboratory Location

Mayo Clinic Laboratories - Rochester Main Campus

Fees & Codes

Fees

- Authorized users can sign in to Test Prices for detailed fee information.
- Clients without access to Test Prices can contact Customer Service 24 hours a day, seven days a week.
- Prospective clients should contact their account representative. For assistance, contact Customer Service.

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Test Classification

This test was developed and its performance characteristics determined by Mayo Clinic in a manner consistent with CLIA requirements. It has not been cleared or approved by the US Food and Drug Administration.

CPT Code Information

87186

LOINC® Information

Test ID	Test Order Name	Order LOINC® Value
MMLRG	Susc, AFB, Rapidly Growing	29579-0

Result ID	Test Result Name	Result LOINC® Value
MMLRG	Susc, AFB, Rapidly Growing	29579-0