
Lab Dept: Microbiology

Test Name: MYCOPLASMA PNEUMONIAE + MACROLIDE REFLEX, DNA PCR

General Information

Lab Order Codes: MPPC

Synonyms: *M pneumoniae* PCR + Macrolide Reflex; *Mycoplasma* (Mycoplasmoides) *pneumoniae* Macrolide (Azithromycin) Resistance Prediction; *M. pneumoniae* PCR; PCR for *M. pneumoniae*; *Mycoplasma pneumoniae* DNA, Qualitative Real-time PCR

CPT Codes: 87581 - Infectious agent detection by nucleic acid (DNA or RNA); *Mycoplasma pneumoniae*, amplified probe technique

Test Includes: Polymerase Chain Reaction (PCR), Real-time

Logistics

Lab Testing Sections: Microbiology - Sendouts

Referred to: Mayo Clinic Laboratories (MML Test: MPRP)

Phone Numbers: MIN Lab: 612-813-5866

STP Lab: 651-220-6555

Test Availability: Daily, 24 hours

Turnaround Time: 3 - 4 days, additional time may be required if reflex testing applies

Special Instructions: **Specimen site and date/time of collection** are required for specimen processing.

Test will be cancelled as duplicate testing if a Respiratory pathogen Panel (RPB) is ordered on the same sample.

Specimen

Specimen Type:

- Throat, nasal and NP swabs- culture swab transport system preferred) or place swab in M4-RT, M5 or UTM. ES swabs also acceptable.
- Bronchial alveolar lavage (BAL) or bronch washing in sterile container
- Sputum/tracheal secretions in sterile container
- Fluids: CSF, pleural or pericardial in sterile container

Container:

Swabs: Culture swab transport system (Dacron or rayon swab with aluminum or plastic shaft with either Stuart or Amies liquid medium)

Acceptable: Swab in transport media: M4, M4-RT, M5, M6, universal transport media, or ESwab. Note: Wooden shaft, cotton swabs are **not** acceptable.

Refer to [Specimen Type](#) above for other information.

For M4-RT transport media contact the lab (Supply T605 ordered from Mayo)

Draw Volume:

- Bronchial alveolar lavage (BAL) or bronch: 1 mL (Minimum: 0.5 mL)
- CSF, pleural or pericardial: 0.5 mL
- Other specimens: 1 swab

Collection:

Swab specimens: Do not collect specimens on wooden shaft swabs because the shaft is toxic to these organisms. ESwabs are acceptable.

Bronchoscopy:

1. Specimen obtained by physician through the biopsy channel of the bronchoscope.
2. Transfer specimen into a luki tube/sterile container.

Sputum (expectorate):

1. Collect early morning specimen in a sterile container under the direct supervision of a nurse or a physician.
2. Have patient rinse or gargle with water to remove superficial flora.
3. Instruct patient to cough deeply to produce a lower respiratory specimen.
4. Examine the specimen to make sure it contains this mucus. Do not submit saliva.

NP Swabs:

1. Carefully insert a minitip swab into the posterior nasopharynx via the nose.
2. Rotate the swab slowly for 5 seconds to absorb secretions, keeping the swab near the floor and the septum of the nose.
3. Remove the swab and place swab in swab cylinder.

Throat Swab:

1. Depress tongue with tongue depressor.
2. Sample the posterior pharynx, tonsils, and inflamed areas with a sterile swab.
3. Place swab in swab cylinder.

Fluids:

1. Collect aseptically.
2. Place in sterile container.

Transport/Storage: Transport to the Microbiology Laboratory immediately at room temperature. Store and ship at refrigerated temperatures.

Specimen stable refrigerated (preferred) or frozen for 7 days.

Sample Rejection: Specimen not submitted in appropriate transport container; improperly labeled specimen; insufficient volume; external contamination; respiratory or fluid specimens in VTM; cotton or alginate-tipped swabs; transport swabs containing gel or charcoal; Port-a-Cul tube; anaerobic fluid vials. 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: Negative

A positive result indicates the presence of *Mycoplasma pneumoniae*. A negative result does not rule out the presence of *Mycoplasma pneumoniae* and may be due to the presence of inhibitors within the same matrix, or the presence of organisms at numbers below the limits of detection of the assay.

Methodology: Rapid Polymerase Chain Reaction (PCR) using Light Cycler and Fluorescent Resonance Transfer (FRET)

References: [Mayo Clinic Laboratories](#) October 2023

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

Miller, J Michael (1999) A Guide To Specimen Management in Clinical Microbiology, American Society for Microbiology, Washington DC

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

Updates:

8/12/2004: Effective 8/10/2004, this test was moved from Lab Corp (Viomed) to Mayo Medical Laboratories forward to Focus Technologies, Inc.

3/31/2005: Test moved from MML MayoLink orderable test Wild 83 to interface test 91429. Order code changed. Update to MML's website.

2/23/2007: Test minimum volume previously listed as 0.5 mL. Shipping requirement previously listed as frozen.

8/17/2009: Pleural fluid and nasal aspirates are no longer acceptable specimens.

3/12/10: specified M4 VTM (blue cap) or M5 universal transport media as acceptable transport for swabs. (M5 verified as acceptable by Focus labs customer service).

3/28/2011: Removed M4 media, no longer stocked.

11/15/2013: Testing moved from Focus to internal at MML.

6/2/2015: Added nasal washing as acceptable specimen type.

10/04/2018: Removed Nasal Washings as acceptable specimen.

09/12/2023: Updated test name and details for new reflex testing. Added specimen stability.

10/26/2023: Removed VTM as an acceptable transport medium for all fluids.