# LEPTOSPIRA ANTIBODY

## General Information

- **Lab Order Codes:** LEPA
- **Synonyms:** Leptospira Agglutination, Serum; Weil’s disease; Leptospirosis Antibody: Leptospira IgM Ab
- **CPT Codes:** 86720 – Antibody; Leptospira
- **Test Includes:** Leptospira Antibody reported as negative, equivocal or positive.

## Logistics

- **Test Indications:** As an aid in the diagnosis of leptospirosis.
  
  Known exposure to contaminated water. Usually abrupt onset with fever; may occur in 2 phases. Phase 1 has fever, chills, headache, muscle aches, vomiting or diarrhea. The patient may recover for a time but will become ill again. If a second phase occurs, it is more severe. The person may have kidney or liver failure or meningitis. This phase is also called Weil's disease. Incubation range is 2 days–4 weeks.

- **Lab Testing Sections:** Serology - Sendouts
- **Referred to:** Mayo Medical Laboratories (MML Test: LEPDT)
- **Phone Numbers:** MIN Lab: 612-813-6280  
  STP Lab: 651-220-6550
- **Test Availability:** Daily, 24 hours
- **Turnaround Time:** 1 – 3 days, test performed Monday, Wednesday and Friday
- **Special Instructions:** Acute and convalescent specimens obtained to determine seroconversion should be collected 2 or more weeks apart.

## Specimen

- **Specimen Type:** Blood
- **Container:** SST (Gold, marble top or red tube)
**Draw Volume:**  
1 mL (Minimum: 0.3 mL) blood  

**Processed Volume:**  
0.3 mL (Minimum: 0.1 mL) serum  

**Collection:**  
Routine venipuncture  

**Special Processing:**  
Lab Staff: Centrifuge specimen, remove serum aliquot. Store and ship at refrigerated temperatures. Mark specimens as acute or convalescent. Forward promptly.  

**Patient Preparation:**  
None  

**Sample Rejection:**  
Mislabeled or unlabeled specimens  

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**Interpretive**  

**Reference Range:**  

**Negative:** No significant level of Leptospira IgM detected.  
Since antibodies may not be present at undetectable levels during early disease, repeat testing of a convalescent sample collected in 2-3 weeks is recommended.  

**Positive:** IgM antibodies to Leptospira species detected suggesting recent infection. Antibody presence alone cannot be used to definitively diagnose acute infection, as antibodies from a prior exposure or infection may remain detectable for a prolonged period of time. Semi-Urgent result.  

**Critical Values:**  
N/A  

**Limitations:**  
The temporal IgM immune response can vary among patients. Therefore, a single negative result by this assay should not be used to exclude diagnosis, especially in patients with symptoms suggestive of leptospirosis who have an appropriate exposure history.  

This test does not distinguish between acute and past infection. Clinical correlation is required. Patients may remain seropositive for months to possibly years following resolution of disease; therefore, this test cannot be used to establish cure or response to therapy.  

**Methodology:**  
Enzyme-Linked Immunoassay Dot (Immunoblot)  

**References:**  
[Mayo Medical Laboratories](https://www.mayoclinic.org) February 2017
Updates:

4/24/2008: Draw volumes temporarily increased for forward to ARUP.
7/8/16: Test update, MML now forwards to ARUP. Volume, Method and Ref Range updates.
2/9/2017: MML performs test inhouse, no longer forwarding to ARUP. Volume and ref range updates.