**Lab Dept:** Serology

**Test Name:** TULAREMIA ANTIBODY

### General Information

<table>
<thead>
<tr>
<th>Lab Order Codes:</th>
<th>TUL</th>
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<tbody>
<tr>
<td><strong>Synonyms:</strong></td>
<td>Francisella Antibody, Serum; F. tularensis antibody</td>
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<tr>
<td><strong>CPT Codes:</strong></td>
<td>86000 – Agglutinins, febrile, each antigen</td>
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**Test Includes:** *Francisella tularensis* antibody titer

### Logistics

**Test Indications:** Detection of agglutinating antibodies in patients having tularemia

*Francisella tularensis*, a small gram-negative coccobacillus, is the causative agent of tularemia. Man is unusually susceptible to infection, but many wild animals are also hosts.

Human infection is usually through the skin by contact with infected animal tissues or pelts. The organism may also be inhaled or ingested improperly cooked meat or may be transmitted by bloodfeeding arthropods or flies.

Onset of the disease is with high fever followed by enlargement of the liver and spleen. Headache suggesting meningitis often occurs. Most cases are associated with a skin ulcer and nearby lymphadenitis.

**Lab Testing Sections:** Serology - Sendouts

**Referred to:** Mayo Medical Laboratories (MML Test: FRANC) forward to Focus Diagnostics (Focus Test: 40995)

**Phone Numbers:**
- MIN Lab: 612-813-6280
- STP Lab: 651-220-6550

**Test Availability:** Daily, 24 hours

**Turnaround Time:** 2 - 6 days, test is set up Monday - Friday

**Special Instructions:** N/A

### Specimen

**Specimen Type:** Blood
Container: SST (Gold, marble or red) tube

Draw Volume: 3 mL (Minimum: 1.5 mL) blood

Processed Volume: 1 mL (Minimum: 0.5 mL) serum

Collection: Routine blood collection

Special Processing: Lab Staff: Centrifuge specimen, remove serum into a screw-capped round bottom plastic vial. Store and ship at room temperature. Forward promptly.

Patient Preparation: None

Sample Rejection: Specimens other than serum, mislabeled or unlabeled specimens

**Interpretive**

<table>
<thead>
<tr>
<th>Reference Range:</th>
<th>All Ages:</th>
<th>&lt;1:20</th>
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**Interpretive Criteria:**

<table>
<thead>
<tr>
<th>Titer</th>
<th>Interpretation</th>
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</thead>
<tbody>
<tr>
<td>&lt;1:20</td>
<td>Negative</td>
</tr>
<tr>
<td>1:20 – 1:80</td>
<td>Equivocal</td>
</tr>
<tr>
<td>&gt;or = 1:160</td>
<td>Positive</td>
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</tbody>
</table>

In the presence of compatible symptoms, a *Francisella tularensis* antibody titer of 1:160 or greater in an acute specimen supports a presumptive diagnosis of tularemia. However, a titer > or = 1:160 may also reflect past infection. An equivocal titer may be due to cross-reactive antibodies (Brucella, Yersinia, or Proteus OX19), past infection, or very recent infection. A four-fold rise in titer between acute and convalescent sera is required for definitive serologic diagnosis of tularemia.

Test Performed by:
Focus Diagnostics, Inc.
5785 Corporate Avenue
Cypress, CA 90630-4750

**Critical Values:** N/A

**Limitations:** Cross-reacting antibody to brucella, yersinia, or proteus OX19 may occur (false positive)

**Methodology:** Direct agglutination

**References:**
Mayo Medical Laboratories Web Page February 2018
Focus Diagnostics February 2018
Updates:  
5/8/2006: Test moved from Mayo Medical Laboratories to Mayo forward to Focus Diagnostics.  
7/8/2010: Specimen storage changed from refrigerated to room temperature.  
2/2/2018: Collection container update.