**Lab Dept:** Serology  
**Test Name:** TICK- BORNE DISEASE ANTIBODY PANEL

### General Information

**Lab Order Codes:** TBAP (Ab Only); TBPL (orders both PCR and Ab Testing)

**Synonyms:** Ehrlichia chaffeensis; Babesia microti; Borrelia burgdorferi; Tick-borne diseases; Anaplasma phagocytophilum; HME (Human Monocytic Ehrlichiosis); Lyme disease

**CPT Codes:**
- 86618 – Lyme disease
- 86666 x2 – Ehrlichia chaffeensis and Anaplasma phagocytophilum
- 86753 – Babesia microti
- 86617 x 2 – Lyme disease Western blot (if appropriate)

**Test Includes:**
- Ehrlichia chaffeensis (HME) IgG, Anaplasma phagocytophilum IgG and Babesia Microti Ab IgG reported as a titer.
- Lyme disease serology reported as negative (if Lyme disease serology is positive or equivocal, then the Lyme disease antibody confirmation by Western blot will be performed at an additional charge).

### Logistics

**Test Indications:** Useful for evaluation of the most common tick-borne diseases found in the United States, including Lyme disease, human monocytic and granulocytic ehrlichiosis and babesiosis; evaluation of patients with a history of, or suspected, tick exposure who are presenting with fever, myalgia, headache, nausea, and other nonspecific symptoms.

**Lab Testing Sections:** Serology - Sendouts

**Referred to:** Mayo Medical Laboratories (MML Test: TICKS)

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

**Test Availability:** Daily, 24 hours

**Turnaround Time:** 2 – 4 days, test performed Monday – Friday

**Special Instructions:** N/A

### Specimen
Specimen Type: Blood

Container: SST (Marble, gold or red top tube)

Draw Volume: 3 mL (Minimum: 2.1 mL) blood

Processed Volume: 1 mL (Minimum: 0.7 mL) serum

Collection: Routine venipuncture

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

Submitting the minimum specimen volume makes it impossible to repeat the test or perform confirmatory or perform reflex testing. In some situations a minimum specimen volume may result in a QNS (quantity not sufficient) result, requiring a second specimen to be collected.

Patient Preparation: None

Sample Rejection: Unlabeled or mislabeled specimens; gross hemolysis; gross lipemia

Interpretive

Reference Range:

<table>
<thead>
<tr>
<th>Test</th>
<th>Reference Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ehrlichia chaffeensis (HME) IgG titer</td>
<td>&lt;1:64</td>
</tr>
<tr>
<td>Anaplasma phagocyphilum IgG titer</td>
<td>&lt;1:64</td>
</tr>
<tr>
<td>Babesia microti Ab IgG titer</td>
<td>&lt;1:64</td>
</tr>
<tr>
<td>Lyme disease serology</td>
<td>Negative</td>
</tr>
</tbody>
</table>

Critical Values: N/A

Limitations: See information for individual diseases.

Methodology: Immunofluorescence Assay (IFA), Enzyme Imunoassay (EIA)

References: Mayo Medical Laboratories July 2013

Updates: 8/22/16: Tube type update.