Lab Dept: Serology

Test Name: BETA-2 GLYCOPROTEIN 1 (IgG, IgM) ANTIBODY PANEL

General Information

Lab Order Codes: B2GP1

Synonyms: B2GP1 (Beta-2 Glycoprotein 1); Beta-2 GP1 Ab Panel, Serum; Beta 2 GP1 Ab IgG; Beta 2 GP1 Ab IgM

CPT Codes: 86146 x 2 - Beta 2 glycoprotein 1 antibody, each

Test Includes: Beta 2 GP1 Ab IgG, and IgM antibodies

Logistics

Test Indications: Testing for beta-2 GP1 antibodies may be useful in the following clinical situations:

• Unexplained arterial or venous thrombosis
• A history of pregnancy morbidity defined as 1 or more unexplained deaths of a morphologically normal fetus beyond the 10th week of gestation, 1 or more premature births before 34 weeks of gestation caused by severe preeclampsia or placental insufficiency, or 3 or more unexplained, consecutive spontaneous abortions before the 10th week of gestation with no identifiable maternal hormonal or anatomic, or maternal or paternal chromosomal causes.
• Presence of an unexplained cutaneous circulatory disturbance, eg, livido reticularis or pyoderma gangrenosum.
• Unexplained thrombocytopenia or hemolytic anemia
• Possible nonbacterial, thrombotic endocarditis

Lab Testing Sections: Serology - Sendouts

Referred to: Mayo Medical Laboratories (MML Test: B2GMG)

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

Test Availability: Daily, 24 hours

Turnaround Time: 1 - 3 days, performed Monday - Saturday

Special Instructions: N/A
**Specimen**

Specimen Type: Blood  
Container: SST (Gold, marble or red)  
Draw Volume: 1.5 mL (Minimum: 1.2 mL) blood  
Processed Volume: 0.5 mL (Minimum: 0.4 mL) serum  
Collection: Routine venipuncture  
Special Processing: Lab Staff: Centrifuge specimen, remove serum aliquot into a plastic screw-capped vial. Store and ship at refrigerated temperatures.  
Patient Preparation: None  
Sample Rejection: Mislabeled or unlabeled specimens; gross hemolysis; gross lipemia

**Interpretive**

<table>
<thead>
<tr>
<th>Reference Range</th>
<th>Interpretation</th>
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</thead>
<tbody>
<tr>
<td>&lt;15.0 U/mL</td>
<td>Negative</td>
</tr>
<tr>
<td>15.0 - 39.9 U/mL</td>
<td>Weakly positive</td>
</tr>
<tr>
<td>40.0 – 79.9 U/mL</td>
<td>Positive</td>
</tr>
<tr>
<td>≥80.0 U/mL</td>
<td>Strongly positive</td>
</tr>
</tbody>
</table>

Results are expressed in arbitrary units and apply to IgG, and IgM values.

**Critical Values:** N/A

**Limitations:** The immunoassay for beta-2 glycoprotein (beta-2 GP1) antibodies does not distinguish between autoantibodies and antibodies produced in response to infectious agents or as epiphenomena following thrombosis. For this reason, a single positive test result is not sufficient to meet accepted serologic criteria for the diagnosis of antiphospholipid syndrome.

Comparative studies and interlaboratory proficiency surveys indicate that results of beta-2 GP1 antibody tests can be highly variable and results obtained with different commercial immunoassays may yield substantially different results.

**Methodology:** Enzyme-Linked Immunosorbent Assay (ELISA)
References: Mayo Medical Laboratories March 2017

Updates: 7/9/2014: IgA is no longer performed as a part of this panel. Current guidelines include only IgG/IgM isotypes for the classification of antiphosphid syndrome (APS).
3/1/2017: Reference range change due to implementation of new kit.