

BloodCenter of Wisconsin offers a solid phase immunoassay for detection of antibodies to β_2 Glycoprotein I.

BACKGROUND:

Antiphospholipid Syndrome (APS) is associated with thrombocytopenia, recurrent fetal loss and an increased risk of venous and arterial thrombosis. Pathogenic levels of antiphospholipid antibodies (APA) directed against phospholipid-protein complexes can be IgG, IgM, or mixed isotypes. APA are very heterogenous, requiring several different tests for detection. A complete evaluation for antiphospholipid syndrome includes assays for lupus anticoagulant, anticardiolipin antibody and beta 2 glycoprotein I antibody. Anticardiolipin antibody assays are widely available, but specificity is limited. Patients with infections and inflammatory conditions may produce transient anticardiolipin antibodies that usually are not associated with thrombosis. Anti- β_2 GPI antibodies are a more specific marker for increased risk of thrombosis.

Diagnosis of APS requires demonstration of a persistent abnormality by repeat testing at or beyond 12 weeks. APA results assist physicians in reaching a diagnosis for patients with thrombosis, thrombocytopenia or complications of pregnancy. In addition, these results are helpful in determining the intensity and duration of anticoagulant treatment for patients with Antiphospholipid Syndrome and thrombosis.

METHOD:

ELISA. IgG and IgM isotypes are quantitated individually. IgA antibodies are not considered diagnostic, therefore are not included in evidence-based clinical guidelines due to lack of specificity.

LIMITATIONS:

If Antiphospholipid Syndrome is suspected, it is recommended to perform lupus anticoagulant, anti- β_2 GPI, and anticardiolipin antibody testing. Retest patients with positive results at or beyond 12 weeks to rule out a transient antibody.

Note: one study has shown that β_2 GPI antibody titers fall at the time of an acute thrombotic event, so testing when remote from the thrombosis may be more informative.

REFERENCE RANGE:

Negative = 0 – 20

Results are reported in standard IgG, IgM anti- β_2 GPI units = SGU, or SMU.

SPECIMEN REQUIREMENTS:

0.5 mL citrated plasma frozen in a plastic tube.

TURNAROUND TIME: 7-10 days

CPT CODES: 86146 x 2

SHIPPING REQUIREMENTS:

Place the frozen specimen and the test requisition form into plastic bags, seal and place in an insulated container. Surround with at least 5 pounds of dry ice. Seal the insulated container, place in a sturdy cardboard box and tape securely. Ship the package in compliance with your overnight carrier guidelines. Label with the following address:

Client Services/Hemostasis Reference Laboratory
BloodCenter of Wisconsin
638 N. 18th Street
Milwaukee, WI 53233
800-245-3117, ext. 6250

REFERENCES:

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