Beta2 Glycoprotein IgM / Beta2 Glycoprotein IgG – [Serum] Analysis

Objective

The objective of this test is to measure IgM and IgG antibodies against Beta2 Glycoprotein I in serum. These antibodies are important markers for diagnosing antiphospholipid syndrome (APS), which is associated with recurrent thrombosis, pregnancy complications, and autoimmune diseases such as systemic lupus erythematosus (SLE).

Materials and Methods

Materials:
- Serum sample from patient
- ELISA kits for Beta2 Glycoprotein IgM and IgG antibodies
- Microplate reader and washing equipment
- Standard laboratory equipment (pipettes, centrifuge)

Methods:
1. Sample Collection: Collect venous blood and separate serum by centrifugation.
2. Antibody Detection: Perform ELISA to detect and quantify IgM and IgG antibodies against Beta2 Glycoprotein I.
3. Interpretation: Elevated antibody levels indicate possible APS and should be confirmed by repeat testing after 12 weeks and clinical correlation.
4. Quality Control: Utilize assay-provided positive and negative controls to ensure accuracy.
5. Correlation: Combine results with lupus anticoagulant and anticardiolipin antibody tests for comprehensive APS diagnosis.

Results

- Negative: Antibody levels below cutoff (no evidence of APS)
- Positive: Elevated IgM and/or IgG Beta2 Glycoprotein antibodies suggest APS or autoimmune disease
- High titres: Associated with increased risk of thrombosis and pregnancy complications

Conclusion

Testing for Beta2 Glycoprotein IgM and IgG antibodies is critical for diagnosing antiphospholipid syndrome and assessing thrombotic risk. Results should be interpreted with clinical history, coagulation studies, and other antiphospholipid antibody tests for accurate diagnosis.