C1q Antibody, IgG

Indications for Ordering

• Evaluate risk for developing lupus nephritis in individuals with systemic lupus erythematosus (SLE)
• Evaluate global SLE disease activity

Test Description

Enzyme-linked immunosorbent assay (ELISA)

Tests to Consider

Primary test
Anti-C1q Antibody, IgG 2007601
• Assess risk for lupus nephritis and global SLE disease activity

Related tests

Aid in initial diagnosis of connective tissue disease
• Antinuclear Antibody (ANA) with HEp-2 Substrate, IgG by IFA with Reflex by Pattern 3000601
• Antinuclear Antibodies (ANA), IgG by ELISA with Reflex to ANA, HEp-2 Substrate, IgG by IFA 0050080
• Connective Tissue Diseases Profile 0051668
• Antinuclear Antibodies (ANA), IgG by ELISA with Reflex to ANA HEp-2 Substrate, IgG by IFA and ENA Confirmation 0050317

Secondary screening for SLE based on ANA results
• Double-Stranded DNA (dsDNA) Antibody, IgG by ELISA with Reflex to dsDNA Antibody, IgG by IFA 0050215
• Double-Stranded DNA (dsDNA) Antibody, IgG by IFA (using Crithidia luciliae) 2002693
• Smith and Smith/RNP (ENA) Antibodies, IgG 3000460
• Smith (ENA) Antibody, IgG 0050085

Aid in diagnosis of SLE or drug-induced lupus
• Chromatin Antibody, IgG 2005287

Useful in the differential diagnosis of connective tissue diseases with or without myopathy
• Smith/RNP (ENA) Antibody, IgG 0050470

Disease Overview

• SLE is an autoimmune disease with multiorgan involvement
• ~60% of SLE patients will develop nephritis
  o Development of nephritis impacts survival

Physiology

• C1q antibodies – associated with active glomerulonephritis in patients with SLE
• SLE – presence of antibodies predicts higher risk for developing severe clinical manifestation of disease
• Renal disease
  o Presence of antibodies correlates with renal activity and flares
  o Absence of antibodies indicates high negative predictive value

Test Interpretation

Sensitivity/specificity

• Clinical sensitivity/specificity – varies based on disease population and disease state
• Analytical sensitivity/specificity – varies based on disease population and disease state as well as testing platform

Results

• Negative – 0-19 units
• Equivocal – 20-39 units
• Positive – ≥40 units

Limitations

• Not all patients with lupus nephritis will be positive for C1q antibodies
• C1q antibodies are not specific for lupus