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
  - 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
  - Presence of antibodies correlates with renal activity and flares
  - 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