### Human Circulating Immune Complexes (Anti-C1q IgG) ELISA Kit, Cat# 2950

**Human Anti-C1q IgG ELISA kit | Quantitative | Calibrators 0-100 U/ml | Sample=100 ul (diluted); 60 min assay**

#### Kit Contents
- 12x8 wells antigen coated plates
- 6 vials of calibrators A-F (0-100 u/ml)
- 2 vials of controls (-ve and +ve)
- 1 bottle of sample buffer, 20 ml (5X)
- 1 vial of enzyme conjugate, (15 ml)
- 1 vial of TMB substrate (15 ml)
- 1 vial of Stop Solution (15 ml)
- 1 vial of Wash soln conc 20 ml (50x)
- 1 instruction manual

#### Human Anti-C1q IgG (Circulating immune complexes) ELISA Kit Features
- Purified human C1q Pre-coated, stabilized, ready-to-use 96-well strip plate, suitable for multiple runs over 6-9 months.
- Convenient, stable, liquid human anti-c1q IgG calibrators 6: A-F (0, 6.3, 12.5, 25, 50, and 100 U/ml; 1.5 ml each) & 2 controls (negative and positive, 1.5 ml each)
- 100ul samples diluted 1:100 or more; 60 min room temp assay
- Qualitative (-ve or +ve) or quantitative methods;
- Contains all necessary reagents. Stability ~12 months

**This kit is for measuring anti-human C1q IgG in human serum. For in vitro research use only.**

#### Assay Procedure: Allow all reagents to reach room temperature. Arrange and label required number of strips.

**Step 1.** Pipet 100 ul each of pre-diluted standards, samples (diluted 1:100 or more). Mix gently and incubate at room temp for 30 min.
**Step 2.** Aspirate and wash 3X. Add 100 ul of antibody-HRP Conjugate to all wells, mix gently and incubate at room temp for 15 min.
**Step 3.** Aspirate and wash 3X. Add 100 ul of TMB Substrate solution to all wells, mix gently, and incubate at room temp for 15 min.
**Step 4.** Pipet 100 ul of stop solution into each well and mix gently (blue color turns yellow). Measure absorbance at 450 nm. Determine antibody concn in each sample using the calibrators (results are expressed as positive or negatives or in units/ml).

#### Interpretation of Results

**Normal:** < 10 u/ml; **Elevated:** > 10 u/ml

**Quantitative Method:** For Anti-C1q IgG a 4-Parameter-Fit with lin-log coordinates for optical density and concentration is the data reduction method of choice

#### Performance Characteristics

<table>
<thead>
<tr>
<th>Intra-Assay Precision</th>
<th>~5.0 %</th>
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</thead>
<tbody>
<tr>
<td>Inter-Assay-Precision</td>
<td>~5 %</td>
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<tr>
<td>Analytical Sensitivity</td>
<td>0.5 U/mL</td>
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<tr>
<td>Specificity</td>
<td>The microplate is coated with C1q. The antigen preparation is highly purified by affinity chromatography. The Anti-C1q test is specific only for autoantibodies directed against Anti-C1q</td>
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<tr>
<td>Interferences</td>
<td>No interference has been observed with haemolytic (up to 1000 mg/dL), lipemic (up to 3 g/dL triglycerides) or bilirubin (up to 40 mg/dL) containing sera. Nor have any interfering effects been observed with the use of anticoagulants. However for practical reasons it is recommended that grossly hemolyzed or lipemic samples should be avoided</td>
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#### General Information

An intact classical pathway of the complement system is essential for protection against immune complex diseases. C1q is a central molecule in the first step of the classical complement activation pathway. The globular heads of C1q bind to the Fc regions of immunoglobulins IgM or IgG thus inducing an activation of the other subcomponents of C1, C1r and C1s. The presence of Anti-C1q autoantibodies is associated with several autoimmune and renal illnesses. Containing an occurrence of 100% in the hypocomplementaemic uricaeril vasculitis syndrome (HUVS), Anti-C1q autoantibodies act as a diagnostic marker for this disease [7]. They were also described in systemic lupus erythemathodes (SLE) and especially in lupus nephritis. It was discovered that up to 60% of patients with SLE [2] have such antibodies. Anti-C1q autoantibodies were also reported in various other rheumatic diseases such as FELTY’s syndrome, rheumatoid vasculitis or classic polyarthritis nodosa [1]. Serial measurement of Anti-C1q titers will be an effective tool for the guidance of immunosuppressive therapy in SLE patients. Anti-C1q autoantibodies may be especially relevant for monitoring of lupus nephritis activity. The highest Anti-C1q titers were found in patients with active lupus nephritis. It was also demonstrated that rises in Anti-C1q titers have predictive value for ensuing relapses of lupus nephritis. [1] It is described that in some cases patients with clinical active lupus were found as Anti-ds DNA negative, so Anti-C1q antibodies may serve as an additional tool for rheumatologist to document lupus activity. [2]

#### Related ELISA kits

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>3000</td>
<td>Human Rheumatoid Factors IgM (RF) ELISA Kit, 96 tests, Semi-Quantitative</td>
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<tr>
<td>3100</td>
<td>Human anti-dsDNA ELISA Kit, 96 tests, Quantitative</td>
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<tr>
<td>3200</td>
<td>Human Anti-Nuclear Antibodies (ANA) ELISA Kit, 96 tests, Semi-Quantitative</td>
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