CIC ELISA

Prognosis and Follow up of Rheumatic and Autoimmune Diseases

Fast, Reliable and Clear-Cut Results

Results within 2 hours

Accurate

Highly Sensitive
Summary and Explanation
Circulating Immune Complexes (CIC) are formed by the interaction of antibodies with immunogenic antigens. Immune Complexes with only a slight excess of antibody and antigen are soluble and activate complement. CIC formation may be viewed as host defense directed against foreign antigens. Under normal circumstances CIC are cleared by phagocytosis. If CIC escape phagocytotic clearance they may be deposited in endothelial or vascular structures, thus provoking an inflammatory response leading to tissue damage. CIC have been associated with an increasing variety of diseases, such as autoimmune, rheumatic, infectious, metabolic, renal, hematological and neoplastic diseases.

Expected Values and Cut-off
• Expected values in 192 apparently healthy subjects: 0.5-8.9 µg Eq/ml, median: 1.3 µg Eq/ml, mean: 1.7 µg Eq/ml.
• Cut-off (mean + 2 SD): 3.2 µg Eq/ml, grey zone: 3.2 to 5.0 µg Eq/ml.
  => negative <3.2;
  positive >5.0 µg Eq/ml
• Up to 10% of apparently healthy blood donors may show values above the cut-off.

Assay Performance Data
Intra-assay precision 3.6% (n=4 samples, range: 11-22 µg Eq/ml; 20 duplicates, CV range: 2.0-6.1%)
Inter-assay precision 11.3% (n=3 samples, range: 9.2-29.4 µg Eq/ml; 20 repetitions, CV range: 9.2-12.6 %)
Dilution linearity 104.8% (n=3 samples diluted 1:50, 100, 200, 400; measured in triplicate: recovery range: 91-127%)
Analytical sensitivity 0.6 µg Eq/ml (n=20, measured in duplicates)
Functional sensitivity <1 µg Eq/ml (n=20 samples, measured in duplicates; cut-off intra-assay CV=10%)

Sample type Serum and Plasma
Sample storage and stability
2-8°C: up to 7 days
-20°C: for at least 6 months
Standard Range 1-50 µg Eq/ml

Comparison with Nephelometric Method
In a comparison study the BÜHLMANN CIC ELISA assay had the highest sensitivity and a very good specificity (1).