

hs-CRP (Highly-Sensitive C-Reactive Protein)

Analyte: C-Reactive Protein

Specimen Type: Serum, EDTA Plasma, Inquire for additional option(s)

Optimum Volume: 0.5 mL

Stability:

2-8 Degrees C	-20 Degrees C	-70 Degrees C
7 days	3 years	3 years

Reporting Units: mg/L

Method: Immunoturbidimetric

Biological or Clinical Significance:

C-reactive protein is the classic acute phase protein in inflammatory reactions. It is synthesized by the liver and consists of five identical polypeptide chains forming a five-membered ring of molar mass 120,000 daltons. CRP is among the most sensitive of the acute phase reactants.

CRP assays are used to detect systematic inflammatory processes. Sensitive CRP measurements have been used and promoted for early detection of infection in pediatrics and risk assessment of coronary heart disease. Recent studies indicate that obesity and lifestyle are associated with increases in CRP and risk of cardiovascular disease. Increases in CRP values are non-specific and should not be interpreted without a complete clinical history. When using CRP to assess the risk of coronary heart disease, measurements should be compared to previous values, because of the risk of false positives due to minor acute infections or injury.

Principle of Test Method:

The high sensitive c-reactive protein (hs CRP) assay is an automated immunoturbidimetric method.

References:

1. Freedman DM, Tangrea JA, Virtamo J, Albanes D. The effect of beta-carotene supplementation on serum vitamin D metabolite concentrations. *Cancer Epidemiol Biomarkers Prev.* 1999; 8:1115-1116.
2. Hollis BW, Kamerud JQ, Kurkowski A, Beaulieu J, Napoli JL. Quantification of circulating 1,25-dihydroxyvitamin D with an 125I-labeled tracer. *Clin Chem* 1996; 42:596-592
3. Endres, DB, Rude, RK. Mineral and bone metabolism. in *Tietz Textbook of Clinical Chemistry 3rd Ed.*, Burtis CA, Ashwood, ER, eds. Saunders, Philadelphia, 1999,1395 - 1457.