Adiponectin, Total

Analyte: Adiponectin, Total

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

Optimum Volume: 0.5 mL

2-8°C	-20°C	-70°C
2 days	4 years	4 years

Reporting units: ug/mL

Method: ELISA

Biological or Clinical Significance:

Adiponectin is an adipocyte-specific protein with potential roles in glucose and lipid homeostasis. It is a member of the TNF superfamily. Adiponectin is induced during adipocyte differentiation and its secretion is stimulated by insulin.

Circulating adiponectin levels are high, accounting for approximately 0.01% of total plasma protein. A negative correlation between obesity and circulating adiponectin has been well established, and adiponectin levels increase concomitantly with weight loss. Decreased adiponectin levels are associated with insulin resistance and hyperinsulinemia, and patients with type-2 diabetes are reported to exhibit decreased circulating adiponectin. In addition, high adiponectin levels are associated with a reduced risk of type-2 diabetes. It has been demonstrated that intracellular lipid content in human muscle negatively correlates with adiponectin levels, potentially due to adiponectin-induced fatty acid oxidation. Adiponectin may also play anti-atherogenic and anti-inflammatory roles, which is suggested by decreased plasma levels of adiponectin in patients with coronary artery disease.

Principle of Test Method:

The adiponectin assay is a solid-phase ELISA designed to measure human adiponectin in serum and plasma. It employs the quantitative sandwich enzyme immunoassay principle.