

High Molecular Weight (HMW) & Total Adiponectin

Method:	Enzyme Linked Immunoassay (ELISA)
Kit Manufacturer:	Alpco. Salem, NH
Description:	<p>The HMW & Total Adiponectin ELISA is a simultaneous sandwich assay, which uses two mouse monoclonal antibodies: one as capture that is adsorbed to a 96-well microplate and the other as a primary detector conjugated to biotin.</p> <p>Adiponectin is a protein hormone that modulates a number of metabolic processes, including glucose regulation and fatty acid oxidation. Adiponectin is secreted from adipose tissue (and also from the placenta in pregnancy) into the bloodstream and is very abundant in plasma relative to many hormones. Many studies have found adiponectin to be inversely correlated with body mass index in patient populations. Circulating adiponectin concentrations increase during caloric restriction in animals and humans.</p> <p>The hormone plays a role in the suppression of the metabolic derangements that may result in type 2 diabetes, obesity, atherosclerosis, non-alcoholic fatty liver disease (NAFLD) and an independent risk factor for metabolic syndrome. Adiponectin enhances insulin sensitivity primarily through regulation of fatty acid oxidation and suppression of hepatic glucose production. Adiponectin promoted synaptic and memory function in the brain.</p> <p>The HMW form may be the most biologically active form regarding glucose homeostasis. Coronary artery disease has been found to be positively associated with HMW adiponectin, but not with low molecular weight adiponectin.</p>

Collection and Performance Characteristics

Tube type:	Preferred: SST Alternate: EDTA Plasma, Heparin Plasma, Citrate Plasma
Minimum Volume:	0.1 mL
Special Processing Considerations	Avoid repeated freeze/thaw cycles
Lowest Reportable Value:	0.1 ng/mL
Dynamic range:	0.1 – 5.0 ng/mL
Precision:	Intra-assay variation is 1.1-5.7% Inter-assay variation is 3.6-6.4%
Reference Range:	Unknown