

Vitamin D Binding Protein (DBP)

Method:	Enzyme-Linked Immunosorbent Assay (ELISA)
Kit Manufacturer:	AssayPro LLC, St. Charles, MO
Description:	<p>One of proteins found in plasma, Vitamin D-binding protein (DBP) also known as Gc-globulin is multifunctional in that it performs several actions such as binding of long and short chain fatty acids, transport of vitamin D metabolites, controlling bone development, and a spectrum of less-defined roles in modulating immune and inflammatory responses. DBP is released by liver and is glycosylated measuring about 58KDa. It binds to about 85% to 90% of circulating 25-OH-D2/3 and 1,25-(OH)2-D3 thereby regulating the bioavailability of active vitamin D, and transport to target organs. DBP is a Macrophage Activating Factor (MAF) that has been tested for use as a cancer treatment that would activate macrophages against cancer cells.</p> <p>The AssayMax™ Human Gc-Globulin ELISA (Enzyme-Linked Immunosorbent Assay) Kit is designed for detection and absolute quantitation of Gc-globulin in human plasma and serum samples. This immune assay is a competitive enzyme-based technique that measures human Gc-globulin in about 3 hours. Briefly, a polyclonal antibody specific for human Gc-globulin has been pre-coated onto a 96-well microplate with removable strips. Gc-globulin in standards and samples is competed with a biotinylated human Gc-globulin protein sandwiched by the immobilized antibody and streptavidin-peroxidase (SP) conjugate. After incubation period, all unbound material is washed away and a peroxidase enzyme substrate is added. The color development is stopped, and the intensity of the color is measured. A standard curve is generated each time the assay is performed and is set up with increasing concentrations of standard unlabeled protein and from this curve the amount of protein in unknown samples is calculated.</p>

Collection and Performance Characteristics

Tube type:	Preferred: SST Alternate: Sodium Citrate, EDTA or Heparin Plasma
Minimum Volume:	0.25 ul
Special Processing Considerations	Avoid repeated freeze-thaw cycles
Lowest Reportable Value:	20 ug/mL
Dynamic range:	20 – 40,000 ug/mL
Precision:	Intra-assay variation is 5.9 -6.7% Inter-assay variation is 9.5-10.4%

Reference Range:

200 – 600 ug/mL