

Human IGFBP-1 ELISA Kit ab213789

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Overview

Product name Human IGFBP-1 ELISA Kit

Detection method Colorimetric

Precision Intra-assay

Sample	n	Mean	SD	CV%
1	16	66pg/ml	3.23	= 4.9%
2	16	243pg/ml	17.25	= 7.1%
3	16	1016pg/ml	67.05	= 6.6%

Inter-assay

Sample	n	Mean	SD	CV%
1	24	68pg/ml	3.67	= 5.4%
2	24	225pg/ml	19.8	= 8.8%
3	24	1048pg/ml	86.98	= 8.3%

Sample type Cell culture supernatant, Urine, Serum, Hep Plasma, EDTA Plasma

Assay type Sandwich (quantitative)

Sensitivity < 1 pg/ml

Range 31.2 pg/ml - 2000 pg/ml

Assay time 3h 30m

Assay duration Multiple steps standard assay

Species reactivity Reacts with: Human

Product overview The Human IGFBP-1 Enzyme-Linked Immunosorbent Assay (ELISA) kit (ab213789) is designed for the quantitative detection of Human IGFBP-1 in cell culture supernatants, serum, plasma (heparin, EDTA) and urine.

The ELISA kit is based on standard sandwich enzyme-linked immunosorbent assay technology. A

monoclonal antibody from mouse specific for IGFBP-1 has been pre-coated onto 96-well plates. Standards (Expression system for standard: NSO; Immunogen sequence: A26-N259) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for IGFBP-1 is added subsequently and then followed by washing with PBS or TBS buffer. Avidin-Biotin-Peroxidase Complex was added and unbound conjugates were washed away with PBS or TBS buffer. HRP substrate TMB was used to visualize HRP enzymatic reaction. TMB was catalyzed by HRP to produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional to the Human IGFBP-1 amount of sample captured in plate. The standard product used in this kit is recombinant human IGFBP-1, consisting of 234 amino acids with the molecular mass of 25 kDa.

Notes IGFBP1 is also known as amniotic fluid binding protein (AFBP), placental protein-12, alpha-pregnancy associated endometrial globulin, growth hormone independent binding protein, binding protein-28, binding protein-26, and binding protein-25. The low-molecular weight insulin-like growth-factor binding protein (IGF-BP25) is synthesized by human liver, secretory endometrium and decidua, and is also present in human serum. It binds insulin-like growth factors IGF-I and IGF-II with high affinity, and is proposed to act as a paracrine regulator of cell growth. These IGF-binding proteins are expressed at different concentrations in different tissues and are thought to regulate the activity of IGF I and II. The gene is organized in four exons and spans 5.9 kb. The IBP-1 gene is a single copy gene, located on chromosome 7.

Platform Pre-coated microplate (12 x 8 well strips)

Properties

Storage instructions Store at -20°C. Please refer to protocols.

Components	Identifier	1 x 96 tests
ABC Diluent Buffer	Blue Cap	1 x 12ml
Adhesive Plate Seal		4 units
Antibody Diluent Buffer	Green Cap	1 x 12ml
Anti-Human IGFBP-1 coated Microplate (12 x 8 wells)		1 unit
Avidin-Biotin-Peroxidase Complex (ABC)		1 x 100µl
Biotinylated anti- Human IGFBP-1 antibody		1 x 100µl
Lyophilized recombinant Human IGFBP-1 standard		2 vials
Sample Diluent Buffer	Green Cap	1 x 30ml
TMB Color Developing Agent	Black Cap	1 x 10ml
TMB Stop Solution	Yellow Cap	1 x 10ml
Wash Buffer (25X)		1 x 20ml

Function IGF-binding proteins prolong the half-life of the IGFs and have been shown to either inhibit or stimulate the growth promoting effects of the IGFs on cell culture. They alter the interaction of IGFs

with their cell surface receptors. Promotes cell migration.

Sequence similarities

Contains 1 IGFBP N-terminal domain.

Contains 1 thyroglobulin type-1 domain.

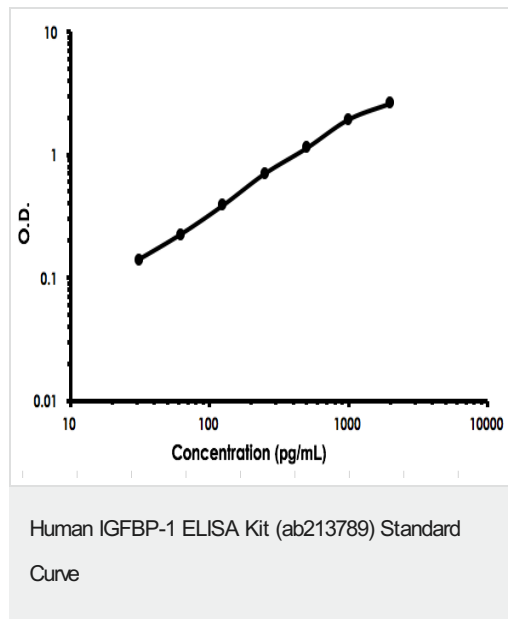
Post-translational modifications

Phosphorylated; probably by casein kinase II. Alters the affinity of the protein for IGFs.

Cellular localization

Secreted.

Images



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