ALPHA DIAGNOSTIC INTERNATIONAL

Product Specification Sheet

Insulin Binding Protein 6 (IGFBP-6) Antibodies and protein control

□ **Cat.** IGFBP62-M	Mouse Anti-Human IGFBP-6 protein IgG	**SIZE**: 100 ug
□ **Cat.** IGFBP62-C	Recombinant Human IGFBP-6 protein control for WB	**SIZE**: 100 ul

The insulin like growth factors (IGFs) are the major growth-promoting factors in the plasma. IGFs are secreted by a variety of cells and exert a multitude of effects on cellular survival, growth and differentiation. The A and B domains of IGFs are identical to insulin. IGF initiates their biological action through binding to the type IGF receptor (IGF-1R), a heterotrimeric protein complex with a tyrosine kinase activity. The IGF-IIR lacks the kinase activity and is actually identical to the mannose-6-phophate receptor. Unlike most other peptide hormones, IGFs are complexed with specific binding proteins in the plasma known **IGF Binding proteins (IGFBPs).** At least 6 related IGFBPs **(IGFBP1-6)** have been well characterized. Recently, **IGFBP-7**/**Mac25**/prostacyclin-stimulating factor (PSF)/tumor adhesion factor (TAF) was originally identified as a cDNA derived from leptomeninges. These proteins are present in plasma in high concentration as compared to the membrane IGFRs. Therefore, IGFBPs have the potential to modulate the IGF action. IGFBPs have been shown to either inhibit or stimulate the IGF effects. The primary structures of mammalian IGFBPs appear to contain three distinct domains of roughly equivalent sizes: the conserved N-terminal domain, the highly variable mid region, and the conserved C-terminal domain. Human IGFBPs share approximately 36% identity.

Human IGFBP-6 is a 240-aa (mature protein 27-240aa). IGFBP6 plays a role in lipoprotein assembly and dietary cholesterol absorption. in addition to its acyltransferase activity, it may act as a ligase. may provide cholesteryl esters for lipoprotein secretion from hepatocytes and intestinal mucosa.

Protein name Insulin-like growth factor-binding protein 6
Synonyms IGFBP-6, IBP-6, IGF-binding protein 6, Gene name Name: IGFBP6, Synonyms: IBP6
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.
SUBCELLULAR LOCATION: Secreted.
PTM: O-linked glycans consist of hexose (probably Gal), N-acetylhexosamine (probably GalNAc) and sialic acid residues. Major glycoforms consist of 8-16 monosaccharides (by homology to IGFBP6 expressed recombinantly in CHO cells).
SIMILARITY: Contains 1 IGFBP N-terminal domain.

Source of Antigen and Antibodies

Antigen	Recombinant (NSO) purified Human IGFBP-6
Ab Host/type	Mouse, monoclonal IgG2b # IGFBP62-M
2-Ab	**Goat Anti-mouse IgG-HRP conjugate** Cat # 40320 (AP, biotin, FITC conjugates also available)
-ve control IgG	Cat # 20008-1, Mouse (non-immune) Serum IgG, purified, suitable for ELISA, Western, IHC as –ve control

For WB positive control (#**IGFBP62-C**), Human IGFBP-6 (148-240 aa, mol wt ~20 kDa) was expressed in E. coli and purified >95%). For Western blot +ve control (**Cat # IGFBP62-C**) is supplied in SDS-PAGE sample buffer (reduced). Load 10 ul/lane of **IGFBP62-C** for good visibility with antibody Cat # **IGFBP62**-M. Store at **–20°C** in suitable size aliquots. SDS may crystallize in cold conditions. It should redissolve by warming before taking it from the stock. It should be heated once prior to loading on gels. If the product has been stored for several weeks, then it may be preferable to add 5 ul of fresh 2x sample buffer per 10 ul of the **IGFBP62-C** solution prior to heating and loading on gels. This preparation is not biologically active. It is not suitable for ELISA or other applications where native protein is required. Do not freeze, thaw, or heat repeatedly

Form & Storage of Antibodies/Peptide Control

Purified IgG
□ 100 ug □ solution □ lyophilized powder
Supplied in Buffer: PBS/1% Trehalose
Reconstitute powder in 100 ul PBS

Storage
Short-term: unopened, undiluted liquid vials at **-20°C** and powder at **4°C** or **-20°C..**
Long-term: at **–20°C** or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

Stability: 6-12 months at **–20°C** or below.
Shipping: **4°C** for solutions and room temp for powder

Recommended Usage

Western Blotting (1-2 ug/ml
ELISA (1:10K; using 50-100 ng control antigen/well).
Neutralization of Human IGFBP-6 Bioactivity: ND50 ~10-20 ug/ml in the presence of 1 ug/ml human IGFBP-6 using MCF-7 cells proliferation assay.

IHC: not tested..

Specificity & Cross-reactivity

IGFBP62-M antibody recognizes IGFBP-6 from human and to a lesser extent with mouse IGFBP-6. It has minimal reactivity (<5%) with mouse IGFBP3 and human IGFBP-4, and no reactivity with human IGFBP1-3. Antibody crossreactivity in various other species is not established. Recombinant purified human IGFBP-6 (#IGFBP62-C) and mouse IGFBP-6 (#IGFBP63-C) can be used as positive control.

General References: (1) Kiefer MC (1991) BBRC 176, 219-225; Shimasaki S (1991) JBC 266, 10646-10653; Abdress DL (1991) BBRC 176, 213-218; Kalus WE (1998) EMBO J 17, 6558-6572

*This product is for in vitro research use only.

Related Items avaialbel from ADI
IGFBP-1-7 antibodies, recombinant proteins, and IGFBP-1 ELISA kit

IGFBP62-M-62-C 240807 80328A

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