

Native Human Insulin-like Growth Factor Binding Protein 1

Cat. No. IGFBP1-612H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Native human IGFBP1 is a 218 amino acid protein that is a member of a family of six circulating proteins which bind IGF-I and IGF-II with high affinity and modulate their metabolic and mitogenic effects. IGFBP1 appears to inhibit smooth muscle migration in response to IGF-I or IGF-II and to stimulate wound healing in response to IGF-II.
Species	Human
Source	Mouse Erythrocytes
Description	This gene is a member of the Insulin-like growth factor-binding protein (IGFBP) family and encodes a protein with an IGFBP domain and a type-I thyroglobulin domain. The protein binds both insulin-like growth factors (IGFs) I and II and circulates in the plasma. Binding of this protein prolongs the half-life of the IGFs and alters their interaction with cell surface receptors. Alternative transcriptional splice variants, encoding different isoforms, have been characterized.
Purity	>95% (by FPLC and SDS-PAGE) Consists of 3-4 phosphorylated forms.
Molecular Weight	25.3 kDa
State/Appearance	Lyophilized white powder dried from 10mM HCl and stored under dry nitrogen at a slight vacuum (-25 kPa).
Biological Activity	Inhibition of IGF-I stimulated proliferation of NUC-1 cells: IC ₅₀ ~ 100 ng/ml. Inhibition

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	of serum-induced stimulation of DNA synthesis in chick embryo fibroblast primary cultures: IC50 (1% serum) ~ 300ng/ml.
Reconstitution	Handling Of IGFBinding Proteins 1-6. Avoid freeze-thaw cycles.
Storage	At least 2 years at 2-4°C (lyophilized). In lyophilized form, the IGFBP is stable for at least 2 years at 2-4°C, or 6 months at room temperature.
Official Symbol	IGFBP1
Pathways	Diabetes pathways; FOXA2 and FOXA3 transcription factor networks; HIF-1-alpha transcription factor network; Myometrial Relaxation and Contraction Pathways; PERK regulated gene expression; Regulation of Insulin-like Growth Factor (IGF) Activity by Insulin-like Growth Factor Binding Proteins (IGFBPs); Unfolded Protein Response

GENE INFORMATION

Gene Name	IGFBP1 insulin-like growth factor binding protein 1 [Homo sapiens]
Synonyms	IGFBP1; insulin-like growth factor binding protein 1; AFBP; IBP1; PP12; IGF-BP25; hIGFBP-1; insulin-like growth factor-binding protein 1; IBP-1; IGFBP-1; OTTHUMP00000159561; OTTHUMP00000207990; OTTHUMP00000214348; binding protein-25; binding protein-26; binding protein-28; placental protein 12; IGF-binding protein 1; amniotic fluid binding protein; growth hormone independent-binding protein; alpha-pregnancy-associated endometrial globulin; Insulin-like growth factor-binding protein 1; Placental protein 12
Gene ID	3484
mRNA Refseq	NM_000596

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Protein Refseq	NP_000587
MIM	146730
UniProt ID	P08833
Chromosome Location	7p13-p12
Function	insulin-like growthfactor binding
PDB rendering based on 1zt3.	