Native Human Insulin-like Growth Factor Binding Protein 1

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

SPECIFICATION

Product Overview	Native human IGFBP1is a 218 amino acid protein that is a member of a family of six circulatingproteins which bind IGF-I and IGF-II with high affinity and modulate theirmetabolic and mitogenic effects. IGFBP1 appears to inhibit smooth musclemigration in response to IGF-I or IGF-II and to stimulate wound healing inresponse to IGF-II.
Species	Human
Source	Mouse Erythrocytes
Description	This gene is amember of the Insulin-like growth factor-binding protein (IGFBP) family andencodes a protein with an IGFBP domain and a type-I thyroglobulin domain. Theprotein binds both insulin-like growth factors (IGFs) I and II and circulatesin the plasma. Binding of this protein prolongs the half-life of the IGFs andalters their interaction with cell surface receptors. Alternatetranscriptional splice variants, encoding different isoforms, have beencharacterized.
Purity	>95% (by FPLC andSDS-PAGE) Consists of 3-4 phosphorylated forms.
Molecular Weight	25.3 kDa
State/Appearance	Lyophilized whitepowder dried from 10mM HCI and stored under dry nitrogen at a slight vacuum(-25 kPa).
Biological Activity	Inhibition of IGF-Istimulated proliferation of NUC-1 cells: IC50 ~ 100 ng/ml. Inhibition

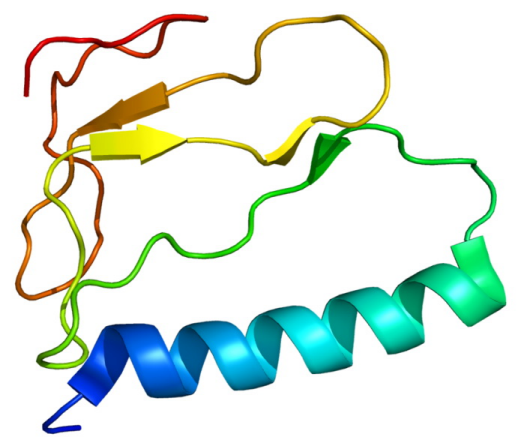
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	ofserum-induced stimulation of DNA synthesis in chick embryo fibroblast primarycultures: IC50 (1% serum) ~ 300ng/ml.
Reconstitution	Handling Of IGFBinding Proteins 1-6. Avoid freeze-thaw cycles.
Storage	At least 2 years at2-4°C (lyophilized). In lyophilized form, the IGFBP is stable for at least 2years at 2-4°C, or 6 months at room temperature.
OfficialSymbol	IGFBP1
Pathways	Diabetes pathways;FOXA2 and FOXA3 transcription factor networks; HIF-1-alpha transcriptionfactor network; Myometrial Relaxation and Contraction Pathways; PERKregulated gene expression; Regulation of Insulin-like Growth Factor (IGF)Activity by Insulin-like Growth Factor Binding Proteins (IGFBPs); UnfoldedProtein Response

GENE INFORMATION

Gene Name	IGFBP1 insulin-like growthfactor binding protein 1 [Homo sapiens]
Synonyms	IGFBP1; insulin-likegrowth factor binding protein 1; AFBP; IBP1; PP12; IGF-BP25; hIGFBP-1; insulin-likegrowth factor-binding protein 1; IBP-1; IGFBP-1; OTTHUMP00000159561;OTTHUMP00000207990; OTTHUMP00000214348; binding protein-25; bindingprotein-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 basedon 1zt3.	

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