

Recombinant Human Insulin-like Growth Factor Binding Protein 5

Cat. No. IGFBP5-81H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human IGFBP5 produced in <i>E. Coli</i> is a single, non-glycosylated, polypeptide chain containing 253 amino acids and having a molecular mass of 28613 Dalton. IGFBP5 is purified by proprietary chromatographic techniques.
Species	Human
Source	E.coli
Description	IGFBP5 is a member of the insulin-like growth factor binding protein (IGFBP) family and encodes a protein with an IGFBP domain and a thyroglobulin type-I domain. The protein forms a ternary complex with insulin-like growth factor acid-labile subunit (IGFALS) and either insulin-like growth factor (IGF) I or II. In this form, it circulates in the plasma, prolonging the half-life of IGFs and altering their interaction with cell surface receptors. Alternate transcriptional splice variants, encoding different isoforms, have been characterized.
Amino Acid sequence	The sequence of the first five N-terminal amino acids was determined and was found to be Met-Leu-Gly-Ser-Phe.
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Purity	Greater than 98.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.

Tel: 1-631-559-9269 1-516-512-3133

Email: info@creative-biomart.com Fax: 1-631-938-8127

45-1 Ramsey Road, Shirley, NY 11967, USA

Formulation	IBP-5 was lyophilized from a concentrated (1mg/ml) solution containing 10 mM sodium Citrate PH 3.0.
Solubility	It is recommended to reconstitute the lyophilized Insulin-Like Growth Factor Binding Protein-5 in sterile 18 MΩ-cm H ₂ O not less than 100g/ml, which can then be further diluted to other aqueous solutions.
Specific Activity	The ED ₅₀ , calculated by its ability to inhibit IGF-II induced proliferation of MCF-7 is < 0.3g/ml in the presence of 15 ng/ml of Human IGF-II.
Stability	Lyophilized IBP5 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution IGFBP 5 should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

GENE INFORMATION

Gene Name	IGFBP5 insulin-like growth factor binding protein 5 [Homo sapiens]
Synonyms	IBP-5; IBP5; IGFBP-5; IGFBP5; IGF-binding protein 5; insulin-like growth factor binding protein 5
Gene ID	3488
mRNA Refseq	NM_000599
Protein Refseq	NP_000590
MIM	146734
UniProt ID	P24593

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Chromosome Location	2q33-q36
Pathway	Diabetes pathway
Function	insulin-like growth factor I binding

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