

Recombinant Human IGFBP3 protein

Cat. No. IGFBP3-80H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human IGFBP3 protein was expressed in Escherichia coli.
Species	Human
Source	E.coli
ProteinLength	264
Description	Insulin-like Growth Factor-Binding Protein 3 (IGF-BP3) belongs to the IGFBP family, which are all cysteine-rich proteins with conserved cysteine and have an IGFBP domain and a thyroglobulin type-I domain. Mature human IGF-BP3 contains 264 a.a. with three potential N-linked and two potential O-linked glycosylation sites. It is expressed by most tissues and has higher levels during extrauterine life and peak during puberty. The expression of IGF-BP3 in fibroblasts is stimulated by mitogenic growth factors such as Bombesin, Vasopressin, PDGF, and EGF. The protein forms a ternary complex with IGF-I or II and acid-labile subunit. In this form, it circulates in the plasma, prolonging the half-life of IGFs and altering their interaction with cell surface receptors. Decreased plasma levels of IGF-BP3 often happen during the progression of prostate cancer from benign to metastatic disease.
Form	Lyophilized from a 0.2µm filtered concentrated solution in PBS, pH 7.4.
Bio-activity	Fully biologically active when compared to standard. The ED50 as determined by inhibiting IGF-II induced proliferation of serum free human MCF-7 cells is less than 200 ng/ml, corresponding to a specific activity of $> 5.0 \times 10^3$ IU/mg in the presence of

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	15 ng/ml of rHuIGF-II.
Molecular Mass	Approximately 28.8 kDa, a single non-glycosylated polypeptide chain containing 264 amino acids.
AA Sequence	GASSGGLGPVVRCEPCDARALAQCAPPAVCAELVREPGCGCCLTCALSEGQPCG IYTERCGSGLRCQPSPDEARPLQALLDGRGLCVNASAVSRLRAYLLPAPPAPGNAS ESEEDRSAGEVESPSVSSTHRVSDPKFHPLHSKIIKKGHAKDSQRYKVDYESQSTD TQNFSSSESKRETEYGPCRREMEDTLNHLKFLNVLSPRGVHIPNCDKKGFYKKKQCR PSKGRKRGFCWCVDKYGQPLPGYTTKGKEDVHCYSMQSK
Endotoxin	Less than 1 EU/μg of rHuIGF-BP3 as determined by LAL method.
Purity	>98% by SDS-PAGE and HPLC analysis.
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤-20 centigrade. Further dilutions should be made in appropriate buffered solutions.

GENE INFORMATION

Gene Name	IGFBP3
Official Symbol	IGFBP3

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Synonyms	IGFBP3; insulin-like growth factor binding protein 3; insulin-like growth factor-binding protein 3; acid stable subunit of the 140 K IGF complex; binding protein 29; binding protein 53; BP 53; growth hormone dependent binding protein; IBP3; IGF binding protein 3; IBP-3; IGFBP-3; IGF-binding protein 3; growth hormone-dependent binding protein; BP-53;
Gene ID	3486
mRNA Refseq	NM_000598
Protein Refseq	NP_000589
MIM	146732
UniProt ID	P17936

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