

Recombinant Human Insulin-like Growth Factor-Binding Protein 3

#R00120

Size: 5 µg/100 µg/500 µg

Stability & Storage

Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.

- 1 month, 2 to 8 °C under sterile conditions after reconstitution.

- 3 months, -20 to -70 °C under sterile conditions after reconstitution.



Warning: This product is intended for scientific research only. It is not to be used for medical or diagnostic procedures in humans or animals, nor as a food, cosmetic, or household product.

Background

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.

AA Sequence

GASSAGLGPVVRCEPCDARALAQCAPPAVCAELVR
EPGCGCCLTCALSEGQPCGIYTERCGSGLRCQPSD
EARPLQALLDGRGLCVNASAVSRLRAYLLPAPPAPGN
ASESEEDRSAGSVESPSVSSTHRVSDPKFHPLHSKIII
IKKGHAKDSQRYKVDYESQSTDTQNFSSSESKRETEY
GPCRREMEDTLNHLKFLNVLSPRGVHIPNCDKKGFY
KKKQCRPSKGRKRGFCWCVDKYGQPLPGYTTKGKE
DVHCYSMQSK

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 °C. Further dilutions should be made in appropriate buffered solutions.

Product Specification

Synonyms	Growth-hormone-dependant Binding Protein, IBP-3, IGF-binding protein 3
Accession	P17936
GeneID	3486
Species	Human
Source	Escherichia coli.
Molecular Weight	Approximately 28.8 kDa, a single non-glycosylated polypeptide chain containing 264 amino acids.
Purity	> 98 % by SDS-PAGE and HPLC analyses.
Biological Activity	Fully biologically active when compared to standard. The ED ₅₀ 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 15 ng/ml of
rHuIGF-II.

**Physical
Appearance** Sterile Filtered White lyophilized
(freeze-dried) powder.

Formulation Lyophilized from a 0.2 μ m
filtered concentrated solution in
PBS, pH 7.4.

Endotoxin Less than 1 EU/ μ g of
rHuIGF-BP3 as determined by
LAL method.
