



Insulin-Like Growth Factor Binding Protein-3, human recombinant (rHuIGFBP-3)

Catalog No: 87384
Lot No: XXXXX
Source: *E. coli*
Synonyms: Growth-hormone-dependant binding protein, IBP3, BP-53, IGFBP-3

Background

IGFBP3 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.

Description

IGFBP3 human recombinant produced in *E. coli* is a homodimeric, non-glycosylated, polypeptide chain containing 2x264 amino acids and having a molecular mass of 28806 Dalton. IGFBP-3 is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

Lyophilized from a 0.2 µm filtered concentrated (0.5 mg/ml) solution in PBS, pH 7.4.

Solubility

It is recommended to reconstitute the lyophilized IGFBP3 in sterile 20 mM AcOH (acetic acid) not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Stability

Lyophilized IBP3, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution IGF-BP 3 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.

Purity

Greater than 97.0% as determined by (a) Analysis by RP-HPLC, (b) Analysis by SDS-PAGE.

Amino Acid Sequence

GASSGGLGPV VRCEPCDARA LAQCAPPPAV CAELVREPGC GCCLTCLASE GQPCGIYTER CGSGLRCQPS PDEARPLQAL
LDGRGLCVNA SAVSRLRAYL LPAPPAPGNA SESEEDRSAG EVESPSVSST HRVSDPKFHP LHSKIIIIKK GHAKDSQRYK
VDYESQSTDT QNFSSSESKRE TEYGPCRREM EDTLNHLKFL NVLSPRGVHI PNCDKKGFKYK KKQCRPSKGR KRGFCWCVDK
YGQPLPGYTT KGKEDVHCYS MQSK

Activity

The ED50, calculated by its ability to inhibit IGF-II induced proliferation of MCF-7 is <0.2 µg/ml in the presence of 15 ng/ml of Human IGF-II, corresponding to a specific activity of 5,000,000 units/mg.

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