Insulin Like Growth Factor Binding Protein-5, human recombinant (rHuIGFBP-5)

Catalog No: 94993
Lot No: XXXXX
Source: *E. coli*
Synonyms: IGFBP-5, IBP-5, IGF-binding protein 5

Background

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.

Description

IGFBP5 human recombinant produced in *E. coli* 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.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

IBP-5 was lyophilized from a concentrated (1 mg/ml) solution containing 10 mM sodium citrate pH 3.0.

Solubility

It is recommended to reconstitute the lyophilized IGFBP5 in sterile 18 MΩ-cm H_2O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

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.

Purity

Greater than 98.0% as determined by (a) Analysis by RP-HPLC, (b) Analysis by SDS-PAGE.

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.

Activity

The ED50, calculated by its ability to inhibit IGF-II induced proliferation of MCF-7 is <0.3 µg/ml in the presence of 15 ng/ml of Human IGF-II.

Usage

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