



Insulin-Like Growth Factor Binding Protein-1, human (rHuIGFBP-1)

Catalog No: 87410
Lot No: XXXXX
Source: Human amniotic fluid
Synonyms: IBP-1, IGF-Binding Protein 1, AFBP, PP12, IGF-BP25, hIGFBP-1, IGFBP-1

Background

IGFBP1 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 binds both insulin-like growth factors (IGFs) I and II and circulates in the plasma. Binding of this protein prolongs the half-life of the IGFs and alters their interaction with cell surface receptors. Alternate transcriptional splice variants, encoding different isoforms, have been characterized.

Description

IGFBP1 native human is a single, glycosylated, polypeptide chain containing 218 amino acids and having a molecular mass of 25.3 kDa. IGFBP1 is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

The protein was lyophilized with 10 mM HCl.

Solubility

It is recommended to reconstitute the lyophilized IGFBP1 in sterile 18 MΩ-cm H₂O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Stability

Lyophilized IGFBP1, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution IGF-BP1 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 95.0% as determined by SDS-PAGE.

Activity

Inhibition of IGF-I stimulated proliferation of NUC-1 cells: IC₅₀ ~ 100 ng/ml Inhibition of serum-induced stimulation of DNA synthesis in chick embryo fibroblast primary cultures: IC₅₀ (1% serum) ~300 ng/ml corresponding to a specific activity of 3,334 IU/mg.

Usage

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