

# **Human Insulin-Like Growth Factor Binding Protein 1 (IGFBP-1)**

## ORDERING INFORMATION

Catalog No: rAP-0048; Size: 5 µg; 20 µg Storage: <- 20° C

## Synonyms:

IBP-1, IGF-Binding Protein 1, AFBP, PP12, IGF-BP25, hIGFBP-1, IGFBP-1.

#### Intorduction:

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:**

Insulin-Like Human Recombinant is a single, glycosylated, Growth Factor Binding Protein-1 polypeptide chain containing 218 amino acids and having a molecular mass of 28806 Dalton. IGF-Binding Protein 1 is purified by proprietary chromatographic techniques.

#### Source:

NSO cells

### **Physical Appearance:**

Sterile Filtered White lyophilized (freeze-dried) powder.

#### Formulation:

The protein was lyophilized with 10mM HCL.

#### Solubility:

It is recommended to reconstitute the lyophilized IBP-1 in sterile  $18M\Omega$ -cm H2O not less than  $100\mu g/ml$ , 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:

(a) Analysis by RP-HPLC.

(b) Analysis by SDS-PAGE.

## **Biological Activity:**

Inhibition of IGF-I stimulated proliferation of NUC-1 cells:  $IC_{50} \sim 100$  ng/ml Inhibition of serum-induced stimulation of DNA synthesis in chick embryo fibroblast primary cultures:  $IC_{50}$  (1% serum) ~300 ng/ml.



## References:

Liu S. *et al.* (1991) Biochem. Biophys. Res. Comm.174, 673-679 Schuller A. G.*et al.* (1993) Growth Regulation 3, 32-34

## Usage:

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