

Recombinant Human IGFBP-4 Protein

Catalog No.: RP00185 **Recombinant**

Sequence Information

Species	Gene ID	Swiss Prot
Human	3487	P22692

Tags

C-His

Synonyms

IGFBP4;BP-4;HT29-IGFBP;IBP4;IGFBP-4

Product Information

Source	Purification
HEK293 cells	> 92% by SDS-PAGE.

Calculated MW	Observed MW
28.77 kDa	35 kDa

Endotoxin

< 0.1 EU/μg of the protein by LAL method.

Formulation

Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4. Contact us for customized product form or formulation.

Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Contact

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Background

IGFBP-4 (insulin-like growth factor binding protein 4) is member of the IGFBP family of structurally similar secreted glycoproteins. IGFBP-4 binds both insulin-like growth factor 1 (IGF-1) and IGF-2 with high affinity and inhibits IGF action in vitro. It circulates in the plasma in both glycosylated and non-glycosylated forms. Binding of this protein prolongs the half-life of the IGFs and alters their interaction with cell surface receptors. There is mounting evidence that IGFBP proteins plays a key role in the regulation of IGF bioavailability, by modulating its molecular size, capillary membrane permeability, target tissue specificity, cell membrane adherence and IGF affinity.

Basic Information

Description

Recombinant Human IGFBP-4 Protein is produced by HEK293 expression system. The target protein is expressed with sequence (Met1-Glu258) of human IGFBP-4 (Accession #NP_001543.2) fused with a 6×His tag at the C-terminus.

Bio-Activity

1. Measured by its binding ability in a functional ELISA. Immobilized Human IGFBP4 at 1 μg/mL (100 μL/well) can bind Human IGF1 with a linear range of 1.95-111.32 ng/mL. 2. Measured by its binding ability in a functional ELISA. Immobilized Human IGFBP4 Protein at 1 μg/mL (100 μL/well) can bind IGF1 with a linear range of 1.95-122.3ng/mL.

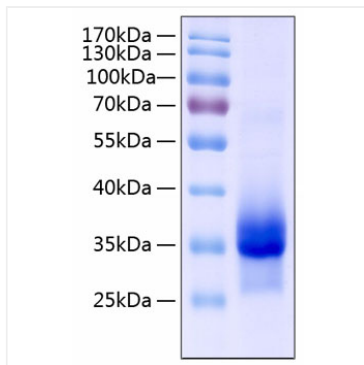
Storage

Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt.

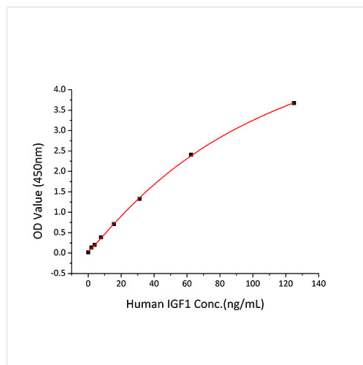
After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.

Avoid repeated freeze/thaw cycles.

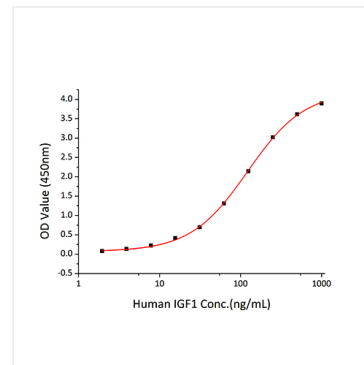
Validation Data



Recombinant Human IGFBP-4 Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 35 kDa.



Immobilized Human IGFBP4 at 1 $\mu\text{g/mL}$ (100 $\mu\text{L/well}$) can bind Human IGF1 with a linear range of 1.95-111.32 ng/mL.



Immobilized Human IGFBP4 Protein at 1 $\mu\text{g/mL}$ (100 $\mu\text{L/well}$) can bind IGF1 with a linear range of 1.95-122.3ng/mL.