



## Synonym

IGFBP4,IBP-4

## Source

Human IGFBP-4, His Tag(IG4-H52E4) is expressed from human 293 cells (HEK293). It contains AA Asp 22 - Glu 258 (Accession # [P22692-1](#)).

Predicted N-terminus: Asp 22

## Molecular Characterization

IGFBP-4(Asp 22 - Glu 258)  
P22692-1

Poly-his

This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 27.9 kDa. The protein migrates as 33-37 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

## Endotoxin

Less than 1.0 EU per µg by the LAL method / rFC method.

## Purity

>95% as determined by SDS-PAGE.

## Formulation

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

## Reconstitution

Please see Certificate of Analysis for specific instructions.

*For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.*

## Storage

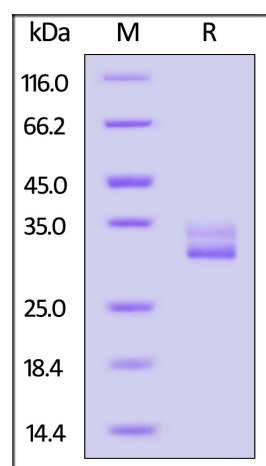
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

## SDS-PAGE

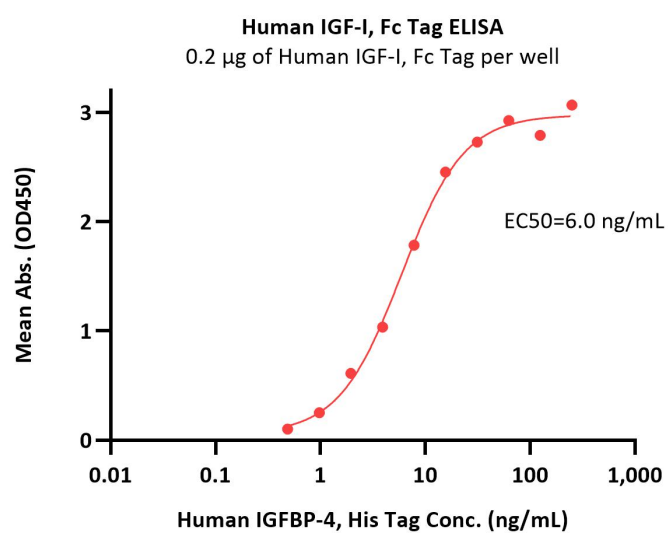


Human IGFBP-4, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

## Bioactivity-ELISA

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Immobilized Human IGFBP-4, His Tag (Cat. No. IG4-H52E4) at 2 µg/mL (100 µL/well) can bind Human IGF-I, Fc Tag with a linear range of 1-16 ng/mL (QC tested).

## Background

Insulin-like growth factor-binding protein 4 (IGFBP-4) is also known as IGF-binding protein 4, which contains an IGFBP domain and a thyroglobulin type-I domain. IGFBP-4 binds both insulin-like growth factors (IGFs) I and II and 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. IGFBP-4 is a unique protein and it consistently inhibits several cancer cells in vivo and in vitro. Its inhibitory action has been shown in vivo in prostate and colon. IGFBP-4 is secreted by all colon cancer cells.

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