Catalog # IG3-H5253



#### Synonym

IGFBP3,BP-53,IBP3

#### Source

Human IGFBP-3 (28-291) Protein, Fc Tag(IG3-H5253) is expressed from human 293 cells (HEK293). It contains AA Gly 28 - Lys 291 (Accession # <u>P17936-1</u>). Predicted N-terminus: Gly 28

# **Molecular Characterization**

IGFBP-3(Gly 28 - Lys 291) Fc(Pro 100 - Lys 330) P17936-1 P01857

This protein carries a human IgG1 Fc tag at the C-terminus.

The protein has a calculated MW of 55.2 kDa. The protein migrates as 65-80 kDa when calibrated against <u>Star Ribbon Pre-stained Protein Marker</u> under reducing (R) condition (SDS-PAGE) due to glycosylation.

# Endotoxin

Less than 1.0 EU per  $\mu g$  by the LAL method.

# Purity

>90% as determined by SDS-PAGE.

#### Formulation

Lyophilized from 0.22  $\mu$ m 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;
- $70^{\circ}$ C for 3 months under sterile conditions after reconstitution.

# **SDS-PAGE**



Human IGFBP-3 (28-291) Protein, Fc Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With <u>Star Ribbon Pre-stained Protein Marker</u>).

# **Bioactivity-ELISA**



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9/14/2024

# Human IGFBP-3 (28-291) Protein, Fc Tag

Catalog # IG3-H5253





Immobilized Human IGFBP-3 (28-291) Protein, Fc Tag (Cat. No. IG3-H5253) at 5  $\mu$ g/mL (100  $\mu$ L/well) can bind Biotinylated Human IGF-II, Avitag,Fc Tag (Cat. No. IG2-H82F9) with a linear range of 0.3-10 ng/mL (QC tested).

#### Background

Insulin-like growth factor-binding protein 3 is also known as IGFBP3, is a protein that, in humans, is encoded by the IGFBP3 gene. IGFBP3 forms a ternary complex of about 140 ~150 kDa with IGF1 or IGF2 and a glycoprotein insulin-like growth factor acid-labile subunit (ALS), thus alter the interaction of IGFs with their cell surface receptors. IGFBP3 exerts either proapoptotic or growth stimulatory effects depending upon the cellular context. Studies have shown that IGFBP3 can leads to the induction of apoptosis dependent or independent of the IGF-IGF receptor axis, accordingly acts as a negative regulator of tumorigenesis and progressing in certain carcinomas. The highest expression level is found in the nonparanchymal cells of the liver. Expression levels are also higher during extrauterine life and peak during puberty.

# **Clinical and Translational Updates**



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