

Human IGFBP3 / IBP3 Protein (His Tag)

Catalog Number: 10430-H07H



Sino Biological Inc.

Biological Solution Specialist

General Information

Gene Name Synonym:

IGFBP3, tcag7.703, BP-53, IBP3

Protein Construction:

A DNA sequence encoding the mature form of human IGFBP3 (NP_000589.2) (Gly28-Lys 291) was fused with a polyhistidine tag at the N-terminus.

Source: Human

Expression Host: Human Cells

QC Testing

Purity: > 85 % as determined by SDS-PAGE

Bio-Activity

1. Measured by its binding ability in a functional ELISA. Immobilized human IGF2 (Cat:13032-H24E) at 10 µg/mL (100 µl/well) can bind biotinylated Human His-IGFBP3, The EC₅₀ of biotinylated Human His-IGFBP3 is 18 ng/mL.

2. Measured by its binding ability in a functional ELISA. Immobilized human IGF1 (Cat:10598-H24E) at 10 µg/mL (100 µl/well) can bind biotinylated Human His-IGFBP3, The EC₅₀ of biotinylated Human His-IGFBP3 is 24 ng/mL.

3. Measured by its ability to inhibit the biological activity of IGF1 or IGFII on MCF7 human breast adenocarcinoma cells (Karey, K.P. et al. (1988) Cancer Research 48:4083.). The ED₅₀ for this effect is typically 0.02-0.2 µg/mL in the presence of 14 ng/mL human IGFII.

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: His 1

Molecular Mass:

The secreted recombinant human IGFBP3 comprises 280 amino acids with a predicted molecular mass of 31 kDa. As a result of glycosylation, the apparent molecular mass of rhIGFBP3 is approximately 40-45 kDa in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose and mannitol are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

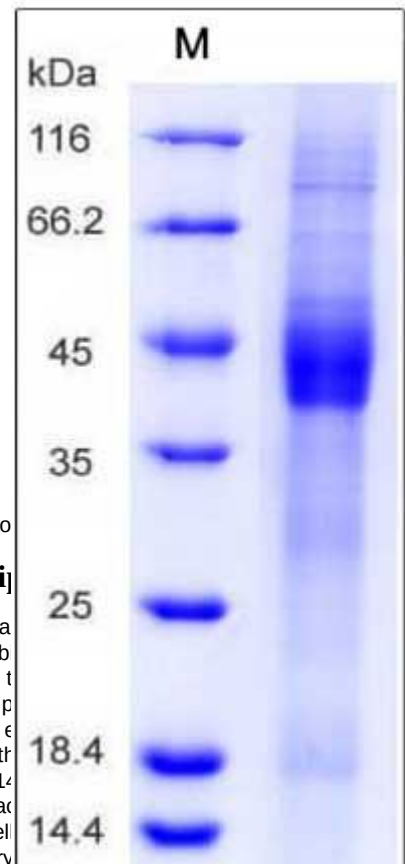
Usage Guide

Storage:

Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

SDS-PAGE:



Reconstitution:

Detailed reconstitution

Protein Description:

Insulin-like growth factor (IGF) is a widely distributed growth factor. IGF is a ternary glycoprotein complex of about 14 kDa. IGFs with their cell or growth stimulatory have shown that IGFBP3 can lead 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. In addition, IGFBP3 also interacts with the Alzheimer's survival peptide humanin (HN), playing a role in neurological disease processes.

References

1. Cubbage, M.L. et al., 1990, J. Biol. Chem. 265: 12642-12649.
2. Ikonen, M. et al., 2003, Proc. Natl. Acad. Sci. U.S.A. 100: 130428-13047.
3. Kim, H.S. et al., 2004, Cancer. Res. 64: 2229-2237.
4. Hong, J. et al., 2002, J. Biol. Chem. 277: 10488-10497.

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