Datasheet for ABIN7520089

IGFBP3 Protein (His tag)

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Overview

Quantity:	100 µg
Target:	IGFBP3
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	This IGFBP3 protein is labelled with His tag.

Product Details

Purpose:	Active Recombinant Human IGFBP-3 Protein
Sequence:	GASSAGLGPV VRCEPCDARA LAQCAPPPAV CAELVREPGC GCCLTCALSE GQPCGIYTER CGSGLRCQPS PDEARPLQAL LDGRGLCVNA SAVSRLRAYL LPAPPAPGNA SESEEDRSAG SVESPSVSST HRVSDPKFHP LHSKIIIIKK GHAKDSQRYK VDYESQSTDT QNFSSESKRE TEYGPCRREM EDTLNHLKFL NVLSPRGVHI PNCDKKGFYK KKQCRPSKGR KRGFCWCVDK YGQPLPGYTT KGKEDVHCYS MQSK
Specificity:	Gly28-Lys291
Purity:	> 95 % by SDS-PAGE.
Sterility:	0.22 µm filtered
Endotoxin Level:	<1EU/µg
Biological Activity Comment:	Measured by its binding ability in a functional ELISA. Immobilized Human IGFBP3 Protein at 1 µg/mL (100 µL/well) can bind IGF1 with a linear range of 0.158-23.05ng/mL.

Target Details

Target:	IGFBP3
Alternative Name:	IGFBP-3 (IGFBP3 Products)
Background:	Description: The Insulin-like Growth Factor (IGF) signaling system plays a central role in cellular growth, differentiation, and proliferation. IGFBP3 is the most abundant IGF binding protein in human serum and is a growth inhibitory, apoptosis-inducing molecule, capable of acting via IGF-dependent and IGF-independent mechanisms. It appears to function both by cell cycle blockade and the induction of apoptosis. IGFBP3 can be transported to the nucleus by an importin beta mediated mechanism, where it has been shown to interact with the retinoid X receptor alpha and possibly other nuclear elements. IGFBP3 antiproliferative signaling appears to require an active transforming growth factor-beta (TGF-beta) signaling pathway, and IGFBP3 stimulates phosphorylation of the TGF-beta signaling intermediates Smad2 and Smad3. IGFBP3 has IGF-independent roles in inhibiting cell proliferation in cancer cell lines. Nuclear transcription factor, retinoid X receptor (RXR)-alpha, and IGFBP3 functionally interact to reduce prostate tumor growth and prostate-specific antigen in vivo. Several clinical studies have proposed that individuals with IGFBP3 levels in the upper range of normal may have a decreased risk for certain common cancers. This includes evidence of a protective effect against breast cancer, prostate cancer, colorectal cancer, and lung cancer. Moreover, IGFBP3 inhibits insulin-stimulated glucose uptake into adipocytes independent of IGF. Name: IGFBP3,BP-53,IBP3
Gene ID:	3486
UniProt:	P17936-1
Pathways:	Myometrial Relaxation and Contraction, Regulation of Muscle Cell Differentiation, Skeletal Muscle Fiber Development, Regulation of Carbohydrate Metabolic Process, Autophagy, Smooth Muscle Cell Migration, Growth Factor Binding

Application Details

Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid votex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stablizer (e.g. 0.1 % BSA, 5 % HSA, 10 % FBS or 5 %

Handling

	Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.
Buffer:	Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4.
Storage:	-20 °C,-80 °C
Storage Comment:	Store the lyophilized protein at -20°C to -80°C for long term.|After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.