

IGFBP4

Recombinant Human IGF-binding protein 4

Catalog No.	CSI12211A	Quantity:	20 µg
Alternate Names:	Insulin-like growth factor-binding protein 4 , IGF-BP-4, IBP-4, IGFBP4		
Description:	IGFBPs control the distribution, function and activity of IGFs in various cell tissues and body fluids. IGFBP4 is the major IGFBP produced by osteoblasts, and is also found in the epidermis, ovarian follicles, and other tissues. IGFBP4 inhibits the activity of IGF-I and IGF-II by binding in a manner that results in the formation of complexes with reduced ability to signal through cell surface IGF receptors. IGFBP4 can inhibit the growth of chick pelvis cartilage and HT29 colon adenocarcinoma cells by blocking the mitogenic actions of IGFs, and has also been shown to reduce colony formation by colorectal cancer cells via an IGF independent pathway. The biological effects of IGFBP4 can be regulated by Pregnancy Associated Plasma Protein A (PAPP-A), which reduces IGFBP4/ IGF binding affinity by proteolytically cleaving IGFBP4. The modulation of IGFBP4 activity by PAPP-A is an important component in the regulation of ovarian folliculogenesis and in the growth inhibition of responding ovarian cancer cells.		
UniProt ID:	P22692		
Gene ID:	3487		
Source:	Insect cells		
Molecular Weight:	25.8 kDa (257 aa)		
Formulation:	Lyophilized from PBS.		
Purity:	> 95%, determined by RP-HPLC and SDS-PAGE analyses.		
Endotoxin Level:	< 1 EU/µg		
Biological Activity:	Determined by its ability to inhibit IGF-I induced proliferation of FDC-P1 cells.		
Species Reactivity:	Human, Mouse		
Amino Acid Sequence:	DEAIHCPPCS EEKLARCRPP VGCEELVREP GCGCCATCAL GLGMPGCVYT PRCGSLRACY PPRGVEKPLH TLMHGQQVCM ELAEIEAIQE SLQPSDKDEG DHPNNSFSPC SAHDRRCLQK HFAKIRDST SGGKMKVNNGA PREDARPVPQ GSCQSELHRA LERLAASQSR THEDLYIIPN PNCDRNGNFH PKQCHPALDG QRGKCWCVDRT KTGVKLPGL EPKGELDCHQ LADSFRE		
Reconstitution:	Centrifuge vial prior to opening. Add sterile water to the vial to a concentration of 0.1 - 1.0 mg/mL. Do not vortex. After complete solubilization of the protein, it may be further diluted with other solutions containing a carrier protein such as 0.1 % BSA.		
Storage & Stability:	The lyophilized protein is stable at -20°C to -80° for up to 1 year. Reconstituted working aliquots are stable for 1 week at 2-8°C and for 3 months at -20°C to -80°C. Avoid repeated freeze/thaw cycles.		

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