

## IGFBP4

### Recombinant Human IGF-binding protein 4

<b>Catalog No.</b>	CSI12211A	<b>Quantity:</b>	20 µg
<b>Alternate Names:</b>	Insulin-like growth factor-binding protein 4 , IGF-BP-4, IBP-4, IGFBP4		
<b>Description:</b>	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.		
<b>UniProt ID:</b>	P22692		
<b>Gene ID:</b>	3487		
<b>Source:</b>	Insect cells		
<b>Molecular Weight:</b>	25.8 kDa (257 aa)		
<b>Formulation:</b>	Lyophilized from PBS.		
<b>Purity:</b>	> 95%, determined by RP-HPLC and SDS-PAGE analyses.		
<b>Endotoxin Level:</b>	< 1 EU/µg		
<b>Biological Activity:</b>	Determined by its ability to inhibit IGF-I induced proliferation of FDC-P1 cells.		
<b>Species Reactivity:</b>	Human, Mouse		
<b>Amino Acid Sequence:</b>	DEAIHCPPCS EEKLARCRPP VGCEELVREP GCGCCATCAL GLGMPCGVYT PRCGSLRCY PPRGVEKPLH TLMHGQGVCM ELAEIEAIQE SLQPSDKDEG DHPNNSFSPC SAHRRCLQK HFAKIRDRST SGGKMKVNGA PREDARVPQ GSCQSELHRA LERLAASQSR THEDLYIPI PNCDRNGNFH PKQCHPALDG QRGKCWCVDR KTGVKLPDDL EPGELDCHQ LADSFRE		
<b>Reconstitution:</b>	<b>Centrifuge vial prior to opening.</b> Add sterile water to the vial to a concentration of 0.1 - 1.0 mg/mL. <b>Do not vortex.</b> After complete solubilization of the protein, it may be further diluted with other solutions containing a carrier protein such as 0.1 % BSA.		
<b>Storage &amp; Stability:</b>	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. <b>Avoid repeated freeze/thaw cycles.</b>		

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