
Product Data Sheet

Product Name: IGFBP 4 Human

Cat. No.: GP20430

Batch No.: 1

Product Data

Purity	>98%	Source	HEK293 cells.
Physical Appearance	solid	Shipping Condition	Shipped at Room temp.
Synonyms	Insulin-like growth factor-binding protein 4; IBP-4; IGF-binding protein 4; IGFBP-4; IGFBP4; IBP4; BP-4; HT29-IGFBP.		
Amino Acid Sequence	DEAIHCPPCS EEKLARCRPP VGCEELVREP GCGCCATCAL GLGMPCGVYT PRCGSGLRCY PPRGVEKPLH TLMHGQGVCM ELAEIEAIQE SLQPSDKDEG DHPNNSFSPC SAHRRRCLQK HFAKIRDRST SGGKMKVNGA PREDARVVPQ GSCQSELHRA LERLAASQSR THEDLYIPI PNCDRNGNFH PKQCHPALDG QRGKCWCVDR KTGVKLPDDL EPKGELDCHQ LADSFRE + His Tag.		
Solubility	It is recommended to reconstitute the lyophilized IGFBP4 in sterile 18M-cm H ₂ O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.		
Formulation	IGFBP 4 was lyophilized after extensive dialysis against PBS.		

Introduction

Insulin-like growth factor-binding protein 4 (IGFBP-4) belongs to the insulin-like growth factor binding protein (IGFBP) family. IGFBP4 includes an IGFBP domain and a thyroglobulin type-I domain. IGFBP4 binds both insulin-like growth factors (IGFs) I and II. IGFBP-4 circulates in the plasma in both glycosylated and non-glycosylated forms. IGFBPs can either inhibit or enhance the biological activities of IGF, or act in an IGF independent manner. IGFBP-4 is exceptional since it consistently inhibits several cancer cells in vivo and in vitro, suggesting that it may function as an apoptotic factor. IGFBP4 is produced by all colon cancer cells. Binding of IGFBP-4 prolongs the half-life of the IGFs and changes their interaction with cell surface receptors.

Biological Activity

The ED₅₀ range is 0.01-0.09µg/ml as measured by its ability to inhibit the biological

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activity of IGFII (20ng/ml) on MCF7 human breast adenocarcinoma cells.

Stability

Lyophilized IGFBP4 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C . Upon reconstitution IGFBP-4 should be stored at 4°C between 2-7 days and for future use below -18°C . For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Background

IGFBP-4 Human Recombinant amino acids Asp22- Glu258, produced in HEK293 cells and fused with a polyhistidine tag at the C-terminus. IGFBP4 predicted Mw is 27kDa and on SDS-PAGE appears as a 32kDa band under denaturing conditions. IGFBP4 is purified by proprietary chromatographic techniques.

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