10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

IGF-BP4, human recombinant protein

Insulin-like Growth Factor-Binding Protein 4, IBP-4, HT29-IGF-BP, colon cancer cell growth inhibitor

Catalog # PBV10796r

Specification

IGF-BP4, human recombinant protein - Product info

Primary Accession	P22692
Calculated MW	**25.7 kDa KDa**

IGF-BP4, human recombinant protein - Additional Info

Gene ID	**3487**
Gene Symbol	**IGFBP4**

Other Names
Insulin-like Growth Factor-Binding Protein 4, IBP-4, HT29-IGF-BP, colon cancer cell growth inhibitor

Gene Source	**Human**
Source	**(BTI-Tn-5B1-4) Hi-5 Insect cells**
Assay&Purity	**SDS-PAGE; ≥98%**
Assay2&Purity2	**HPLC;**
Recombinant	**Yes**
Sequence	**DEAIHCPPCS EEKLARCRPP VGCEELVREP GCGCCATCAL GLGMPCGVYT PRCGSGLRCY PPRGVEKPLH TLMHGQGVCM ELAEIEAIQE SLQPSDKDEG DHPNNSFSPC SAHDRRCLQK HFAKIRDRST SGGKMKVNGA PREDARPVPQ GSCQSELHRA LERLAASQSR THEDLYIIPI PNCDRNGNFH PKQCHPALDG QRGKCWCVDR KTGVKLPGGL EPKGELDCHQ LADSFRE**

Target/Specificity
IGF-BP4

Application Notes
Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 mg/ml. Do not vortex. This solution can be stored at 2-8°C for up to 1 week. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C.

Format
Lyophilized powder

Storage
-20°C; Sterile filtered through a 0.2 micron filter. Lyophilized from 1 x PBS, pH 7.2.

IGF-BP4, human recombinant protein - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

IGF-BP4, human recombinant protein - Images

IGF-BP4, human recombinant protein - Background

IGF-BPs control the distribution, function and activity of IGFs in various cell tissues and body fluids. IGF-BP4 is the major IGF-BP produced by osteoblasts, and is also found in the epidermis, ovarian follicles, and other tissues. IGF-BP4 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. IGF-BP4 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 IGF-BP4 can be regulated by Pregnancy Associated Plasma Protein A (PAPP-A), which reduces IGF-BP4/IGF binding affinity by proteolytically cleaving IGF-BP4. The modulation of IGF-BP4 activity by PAPP-A is an important component in the regulation of ovarian folliculogenesis and in the growth inhibition of responding ovarian cancer cells. Recombinant human IGF-BP4 is a 25.7 kDa protein consisting of 237 amino acid residues including the IGF-BP domain and thyroglobulin type-I domain.

IGF-BP4, human recombinant protein - References

Shimasaki S.,et al.Mol. Endocrinol. 4:1451-1458(1990).
Latour D.,et al.Mol. Endocrinol. 4:1806-1814(1990).
Kiefer M.C.,et al.J. Biol. Chem. 266:9043-9049(1991).
Qin X.,et al.Biochim. Biophys. Acta 1350:136-140(1997).
Zazzi H.,et al.Genomics 49:401-410(1998).