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## Recombinant human IGFBP-1 protein

Catalog Number: ATGP4103

## **PRODUCT INFORMATION**

## **Expression system**

**HEK293** 

#### **Domain**

26-259aa

#### UniProt No.

P08833

#### **NCBI Accession No.**

NP 000587.1

### **Alternative Names**

insulin like growth factor binding protein 1, IGFBP1, AFBP, hIGFBP-1, IBP1, IGF-BP25, PP12, IGF-binding protein 1, Placental protein 12, amniotic fluid binding protein, alpha-pregnancy-associated endometrial globulin

## **PRODUCT SPECIFICATION**

## **Molecular Weight**

25.2kDa (234aa)

#### Concentration

0.5mg/ml (determined by Absorbance at 280nm)

#### **Formulation**

Liquid in. Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol

### **Purity**

> 95% by SDS-PAGE

### **Endotoxin level**

< 1 EU per 1ug of protein (determined by LAL method)

## **Biological Activity**

Measured by its ability to inhibit proliferation using MCF-7 human breast cancer cells in the presence of Human IGF-1. The ED50 range  $\leq 3$  ug/ml.

## Tag

Non-Tagged

## **Application**

SDS-PAGE, Bioactivity

### **Storage Condition**

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.



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### **BACKGROUND**

## **Description**

IGFBP-1(Insulin-like growth factor-binding protein 1), also known as PP12(placental protein 12), is a member of the Insulin-like growth factor-binding protein family. This protein binds both insulin-like growth factors (IGFs) I and II and circulates in the plasma. Binding of this protein prolongs the half-life of the IGFs and alters their interaction with cell surface receptors. IGFBP-1 is expressed in liver, decidua, kidneys and is the most abundant IGFBP in amniotic fluid. Serum levels of IGFBP-1 are lowest after meals. Hepatocyte production of IGFBP-1 is regulated at the transcriptional level due to the affects of insulin and corticosteriods. Recombinant human IGFBP-1 was expressed in HEK293 cell and purified by using conventional chromatography techniques.

## **Amino acid Sequence**

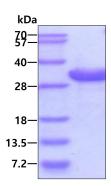
APWQCAPCSA EKLALCPPVS ASCSEVTRSA GCGCCPMCAL PLGAACGVAT ARCARGLSCR ALPGEQQPLH ALTRGQGACV QESDASAPHA AEAGSPESPE STEITEEELL DNFHLMAPSE EDHSILWDAI STYDGSKALH VTNIKKWKEP CRIELYRVVE SLAKAOETSG EEISKFYLPN CNKNGFYHSR OCETSMDGEA GLCWCVYPWN GKRIPGSPEI RGDPNCOIYF NVON

#### **General References**

Jones, J.I. and D.R. Clemmons (1995) Endocrine Rev. 16:3-34. Kelley, K.M., et al, (1996) Int. J. Biochem. Cell Biol. 28:619-637. J.Ekstrand., et al, (1990) Genomics. 6:413-418.

## **DATA**

#### **SDS-PAGE**



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain

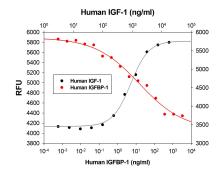
## **Biological Activity**



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