

IGFBP-4 Protein, Human (HEK293, C-His)

Cat. No.:	HY-P7369
Synonyms:	rHuIGF-BP-4, His; IBP-4; IGFBP-4; BP4
Species:	Human
Source:	HEK293
Accession:	P22692 (D22-E258)
Gene ID:	3487
Molecular Weight:	approximately 34.17 kDa

PROPERTIES

AA Sequence	<pre> DEA I H C P P C S E E K L A R C R P P V G C E E L V R E P G C G C C A T C A L G L G M P C G V Y T P R C G S G L R C Y P P R G V E K P L H T L M H G Q G V C M E L A E I E A I Q E S L Q P S D K D E G D H P N N S F S P C S A H D R R C L Q K H F A K I R D R S T S G G K M K V N G A P R E D A R P V P Q G S C Q S E L H R A L E R L A A S Q S R T H E D L Y I I P I P N C D R N G N F H P K Q C H P A L D G Q R G K C W C V D R K T G V K L P G G L E P K G E L D C H Q L A D S F R E </pre>
Biological Activity	<p>1. The ED₅₀ is <50 ng/mL, measured in a bioassay using FDC-P1 cells in the presence of 15.0 ng/ml human IGF-II.</p> <p>2. Measured by its ability to inhibit the biological activity of IGF-II on MCF-7 human breast cancer cells. The ED₅₀ is 0.07882-0.1768 µg/mL in the presence of 14 ng/mL rhIGF-II, corresponding to a specific activity is > 5656.1 units/mg</p>
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS or 20 mM PB, 150 mM NaCl, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	The insulin-like growth factor-binding protein (IGFBP) family consists of six different protein members (IGFBP1-6) that show high inhibition for IGF-1 and IGF-2. IGFBP-4 is a smallest member and modulates the biologic functions by binding to IGFs.
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Moreover, IGFBP-4 mediates IGF-independent biologic activities. IGFBP-4 inhibits colorectal cancer, breast cancer and glioblastoma cells growth. IGFBP-4 acts a crucial inflammatory mediator in the occurrence of severities acute respiratory distress syndrome, which is responsible for cancer proliferation, migration and apoptosis^[1].

REFERENCES

[1]. Li W, et al. Insulin-like growth factor binding protein-4 inhibits cell growth, migration and invasion, and downregulates COX-2 expression in A549 lung cancer cells. Cell Biol Int. 2017 Apr;41(4):384-391.

Caution: Product has not been fully validated for medical applications. For research use only.

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