IGFBP-4 Protein, Human (237a.a, HEK293, His)

Cat. No.:	HY-P72607
Synonyms:	Insulin-Like Growth Factor-Binding Protein 4; IBP-4; IGF-Binding Protein 4; IGFBP-4; IBP4
Species:	Human
Source:	HEK293
Accession:	P22692 (D22-E258)
Gene ID:	3487
Molecular Weight:	30-35 kDa

PROPERTIES

AA Sequence	D E A 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
Biological Activity	Measured by its ability to inhibit the biological activity of IGF-I on MCF-7 human breast cancer cells. The ED_{50} this effect is ≤12.77 ng/mL. corresponding to a specific activity is ≥7.831×10^4 U/mg.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of 20 mM PB, 150 mM NaCl, pH 7.2.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O. 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	IGFBP-4 Protein, a member of the insulin-like growth factor-binding proteins (IGFBPs), plays a vital role in extending the half-life of insulin-like growth factors (IGFs) and modulating their effects on cell culture. With the ability to either inhibit or stimulate IGF-induced growth-promoting effects, IGFBP-4 achieves this regulatory function by altering the interaction

dynamics between IGFs and their respective cell surface receptors. Notably, IGFBP-4 exhibits a preferential binding affinity for IGF2 over IGF1, highlighting its specificity in modulating the interactions between different IGF isoforms and their receptors. This differential binding capacity underscores the intricate regulatory role of IGFBP-4 in fine-tuning the cellular responses to IGFs, emphasizing its significance in the complex network that governs growth-related signaling pathways.

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