IGFBP5
Recombinant Human IGFBP5 / IGFBP-5 (His Tag)

Catalog No.	CRH411A-His	**Quantity:**	20 µg
	CRH411B-His		100 µg

Alternate Names: Insulin-like growth factor-binding protein 5, IBP-5, IGF-binding protein 5, IGFBP-5

Description: Insulin-like growth factor (IGF) signaling is regulated by a conserved family of IGF binding proteins (IGFBPs) in vertebrates. Among the six distinct types of IGFBPs, IGFBP -5 is the most highly conserved across species and has the broadest range of biological activities. IGFBP-5 is expressed in diverse cell types, and its expression level is regulated by a variety of signaling pathways in different contexts. IGFBP-5 can exert a range of biological actions including prolonging the half-life of IGFs in the circulation, inhibition of IGF signaling by competing with the IGF-1 receptor for ligand binding, concentrating IGFs in certain cells and tissues, and potentiation of IGF signaling by delivery of IGFs to the IGF-1 receptor. IGFBP-5 also has IGF-independent activities and is even detected in the nucleus. Its broad biological activities make IGFBP-5 an excellent representative for understanding IGFBP functions. Despite its evolutionary conservation and numerous biological activities, knockout of IGFBP-5 in mice produced only a negligible phenotype.

UniProt ID: P24593

Accession Number: NP_000590.1

Protein Construction: A DNA sequence encoding the human IGFBP5 (NP_000590.1) (Met1-Glu272) was expressed with a polyhistidine tag at the C-terminus.

Source: Baculovirus-Insect Cells

Molecular Weight: The recombinant human IGFBP5 consists of 263 amino acids and predicts a molecular mass of 30 kDa.

Formulation: Lyophilized from sterile 20 mM Tris, pH 8.0, 300 mM NaCl, 10 % glycerol.
Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.

Purity: > 95 % as determined by SDS-PAGE.

Endotoxin Level: < 1.0 EU per µg of the protein as determined by the LAL method

Biological Activity: Measured by its ability to inhibit the biological activity of IGF-I or IGF-II on MCF-7 human breast cancer cells. The ED50 for this effect is 0.1-0.5 µg/mL in the presence of 14 ng/mL rhIGF-II.

Predicted N-terminal: Leu 21

Reconstitution: **Centrifuge vial prior to opening.** Add sterile distilled water to a concentration of 0.1 mg/mL and gently pipette the solution up and down the sides of the vial.
DO NOT VORTEX. Allow several minutes for complete reconstitution.

Storage & Stability: Stable for up to 1 year from date of receipt at -20°C to -80°C
After reconstitution, store working aliquots at -20°C to -80°C.
Avoid repeated freeze-thaw cycles.

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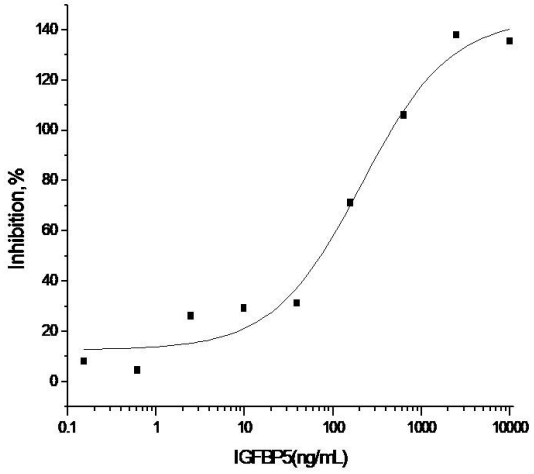
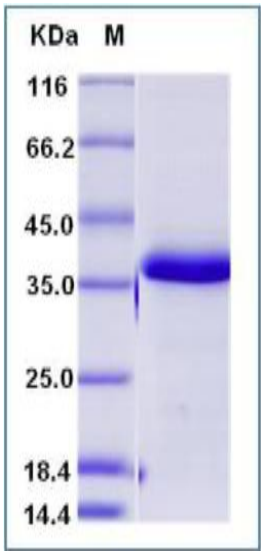


SDS-PAGE



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