

Human IGFBP4 Protein; His Flag Tag

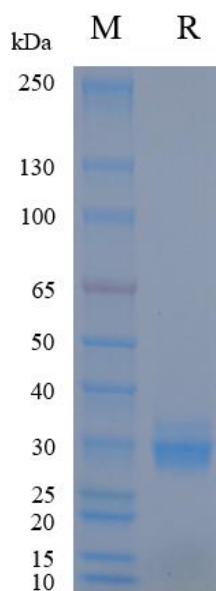
Product Information

Product Name	Human IGFBP4 Protein; His Flag Tag
Storage temp	Store at \leq -70°C, stable for 6 months after receipt. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.
Catalog# / Size	GM-88286RP-100 / 100 μg GM-88286RP-1000 / 1 mg

Protein Information

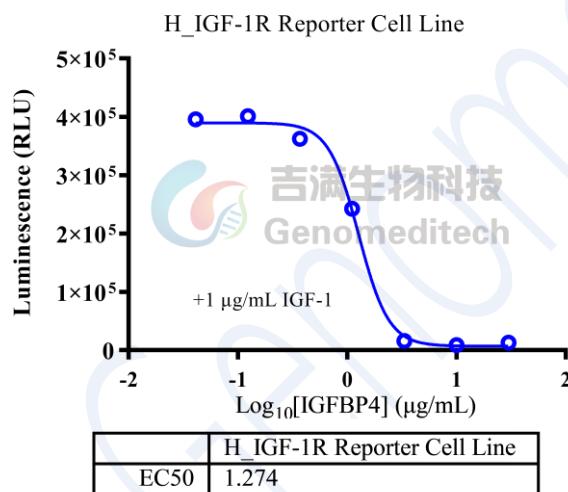
Alternative Names	IGFBP-4, IBP-4
Source	Human IGFBP4 Protein; His Flag Tag (GM-88286RP) is expressed from human 293 cells (HEK-293). It contains AA Asp 22 – Glu 258 (Accession # P22692-1). This protein carries a His tag at the N-terminus.
Purity	> 95% as determined by SDS-PAGE
Endotoxin	< 1 EU/ μ g, determined by LAL gel clotting assay
Predicted Mol Mass	27.8 KDa
Formulation	Supplied as a 0.2 μ m filtered solution of PBS, pH7.2-7.4.
Description	IGFBP4 (Insulin-like Growth Factor Binding Protein 4) is one of six high-affinity IGF-binding proteins that modulate IGF signaling by sequestering IGFs in the extracellular space. It is expressed in multiple tissues and regulates IGF bioavailability, influencing proliferation, differentiation, and survival. IGFBP4 can interact with extracellular matrix components and may be cleaved by specific proteases, releasing IGFs to activate their receptors. It features a conserved IGF-binding domain with N- and C-terminal regions contributing to binding and regulation. IGFBP4 mainly modulates IGF-I/II signaling rather than signaling on its own. By binding IGFs, it dampens IGF receptor activation and downstream PI3K/AKT and MAPK pathways under certain conditions, acting as a reservoir for IGF activity. Proteolytic cleavage (e.g., by PAPPA) can increase local IGF bioavailability and signaling. IGFBP4 may also participate in IGF-independent interactions affecting adhesion and migration. Effects are context-dependent, balancing IGF sequestration with controlled release to shape growth and tissue homeostasis.

SDS-PAGE



On SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

Bioactivity-CELL BASE



The stimulate effect of 1 μ g/mL Human IGF-1 Protein; His Tag (Catalog # GM-87635RP) for H_IGF-1R Reporter Cell Line (Catalog # GM-C28412) was inhibited by increasing concentration of Human IGFBP4 Protein; His Flag Tag (Catalog # GM-88286RP).