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IGF-BP-2

Catalog # PVGS1430

Product Information

Primary Accession	P18065
Species	Human
Sequence	Phe40-Gln325
Purity	> 95% as analyzed by SDS-PAGE
Endotoxin Level	
Biological Activity	ED_{50}
Expression System	HEK 293
Formulation	Lyophilized after extensive dialysis against PBS.
Reconstitution	It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in ddH_2O or PBS up to 100 □g/ml.
Storage & Stability	Upon receiving, this product remains stable for up to 6 months at lower than -70°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw cycles.

Additional Information

Gene ID	3485
Other Names	Insulin-like growth factor-binding protein 2, IBP-2, IGF-binding protein 2, IGFBP-2, IGFBP2, BP2, IBP2
Target Background	IGF-BP-2, also known as Insulin-like growth factor-binding protein 2, IBP-2 and BP-2, is a cysteine-rich secreted protein belonging to the IGF-binding protein superfamily. It is expressed by the central nervous system, bone cells and reproductive tissues. IGF-BP-2 binds to both IGF-I and IGF-II, with a much higher binding affinity to IGF-II than IGF-I. IGF-BP-2 has been shown to inhibitand stimulate the growth promoting effects of IGFs, thus serving as a regulator for IGF distribution, function and activity.

Protein Information

Name	IGFBP2
Synonyms	BP2, IBP2

Function	Multifunctional protein that plays a critical role in regulating the availability of IGFs such as IGF1 and IGF2 to their receptors and thereby regulates IGF-mediated cellular processes including proliferation, differentiation, and apoptosis in a cell-type specific manner (PubMed:18563800, PubMed:38796567). Functions coordinately with receptor protein tyrosine phosphatase beta/PTPRB and the IGF1 receptor to regulate IGF1-mediated signaling by stimulating the phosphorylation of PTEN leading to its inactivation and AKT1 activation (PubMed:22869525). Plays a positive role in cell migration via interaction with integrin alpha5/ITGA5 through an RGD motif (PubMed:16569642). Additionally, interaction with ITGA5/ITGB1 enhances the adhesion of endothelial progenitor cells to endothelial cells (PubMed:26076738). Upon mitochondrial damage, facilitates apoptosis with ITGA5 of podocytes, and then activates the phosphorylation of focal adhesion kinase (FAK)-mediated mitochondrial injury (PubMed:38796567).
Cellular Location	Secreted