

IGF-BP-2
Catalog # PVGS1430**Specification**

IGF-BP-2 - Product Information

Primary Accession [P18065](#)
Species
Human

Sequence
Phe40-Gln325

Purity
> 95% as analyzed by SDS-PAGE

Endotoxin Level
< 0.2 EU/ µg of protein by gel clotting method

Biological Activity
ED₅₀ < 2.0 µg/ml, measured in a bioassay using FDC-P1 cells in the presence of 15.0 ng/ml human IGF-II.

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 ddH₂O or PBS up to 100 µg/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.

IGF-BP-2 - 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 inhibit and stimulate the growth promoting effects of IGFs, thus serving as a regulator for IGF distribution, function and activity.

IGF-BP-2 - 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](http://www.uniprot.org/citations/18563800), PubMed: [38796567](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/22869525)). Plays a positive role in cell migration via interaction with integrin alpha5/ITGA5 through an RGD motif (PubMed: [16569642](http://www.uniprot.org/citations/16569642)). Additionally, interaction with ITGA5/ITGB1 enhances the adhesion of endothelial progenitor cells to endothelial cells (PubMed: [26076738](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/38796567)).

Cellular Location

Secreted

IGF-BP-2 - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

IGF-BP-2 - Images