PRODUCT INFORMATION



IGF2BP2 Long Isoform (human, recombinant)

Item No. 41533

Overview and Properties

Synonyms:	IGF2 mRNA-binding Protein 2, Insulin-like Growth Factor 2 mRNA-binding Protein 2, IMP-2, VICKZ2
Source:	Recombinant human N-terminal His-and GST-tagged IGF2BP2 long isoform expressed in insect cells
Amino Acids:	1-599
Uniprot No.:	Q9Y6M1
Molecular Weight:	94 kDa
Storage:	-80°C (as supplied)
Stability:	≥1 year
Purity:	≥76% estimated by SDS-PAGE
Supplied in:	Lyophilized from sterile 50 mM Tris, pH 8.0, 500 mM sodium chloride, 0.5 mM PMSF, and 5 mM reduced glutathione

Endotoxin Testing: $<1.0 \text{ EU/}\mu g$, determined by the LAL endotoxin assay Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Image



SDS-PAGE Analysis of IGF2BP2. This protein has a calculated molecular weight of 94.0 kDa. It has an apparent molecular weight of approximately 90.0 kDa by SDS-PAGE under reducing conditions due to glycosylation.

WARNING THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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Description

Insulin-like growth factor 2 mRNA-binding protein 2 (IGF2BP2) is an RNA-binding protein (RBP) and a member of the zipcode-binding protein (ZBP) family.¹ It is composed of two N-terminal RNA recognition motifs (RRMs) and four C-terminal heterogeneous nuclear ribonucleoprotein (hnRNP) K-homology (KH) domains. IGF2BP2 is ubiquitously expressed during development and localizes to the cytoplasm.^{1,2} It exists as three isoforms: p58, which lacks an RRM motif, p62, which has a shortened linker region between KH2 and KH3, and the full-length isoform, p66.³ IGF2BP2 is involved in RNA processing through N⁶-methyladenosine (m⁶A) recognition, metabolism, neurogenesis, and embryonic development and interacts with several target transcripts, including *IGF2, LAMB2, TRIM54, EIF4A1,* and *NTN4,* as well as some mitochondrial genes.^{1,3,4} IGF2BP2 promotes or inhibits invasion and migration of cancer cells *in vitro* in a context-dependent manner.^{4,5} SNPs in *IGF2BP2* are associated with an increased risk of type 2 diabetes.⁶ Cayman's IGF2BP2 long isoform (human, recombinant) protein consists of 836 amino acids and has a calculated molecular weight of 94 kDa. By SDS-PAGE, under reducing conditions, the apparent molecular weight of the protein is 90 kDa.

References

- 1. Du, Q.-Y., Zhu, Z.-M., and Pei, D.-S. The biological function of IGF2BPs and their role in tumorigenesis. *Invest. New Drugs* **39(6)**, 1682-1693 (2021).
- 2. Zhang, Y., Xu, S., Xu, G., et al. Dynamic expression of m6A regulators during multiple human tissue development and cancers. Front. Cell Dev. Biol. 8, 629030 (2021).
- 3. Le, H.T.T., Sorrell, A.M., and Siddle, K. Two isoforms of the mRNA binding protein IGF2BP2 are generated by alternative translational initiation. *PLoS One* **7(3)**, e33140 (2012).
- 4. Li, Y., Xiao, Z., Wang, Y., *et al.* The m6A reader IGF2BP2 promotes esophageal cell carcinoma progression by enhancing EIF4A1 translation. *Cancer Cell Int.* **24(1)**, 162 (2024).
- 5. Wang, G., Zhuang, T., Zhen, F., *et al.* IGF2BP2 inhibits invasion and migration of clear cell renal cell carcinoma via targeting netrin-4 in an m⁶A-dependent manner. *Mol. Carcinog.* **63(8)**, 1572-1587 (2024).
- 6. Dai, N. The diverse functions of IMP2/IGF2BP2 in metabolism. Trends in Endocrinol. Metab. 31(9), 679-679 (2020).

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