

## Recombinant IGF2BP3 protein

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**Catalog No:** 81291, 81991

**Expressed In:** Baculovirus

**Quantity:** 20, 1000 µg

**Concentration:** 0.25 µg/µl

**Source:** Human

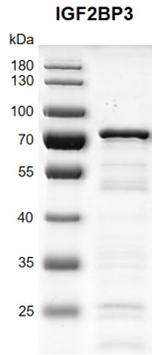
**Buffer Contents:** Recombinant IGF2BP3 protein is supplied in 25 mM HEPES-NaOH pH 7.5, 300 mM NaCl, 10% glycerol, 0.04% Triton X-100, and 0.5 mM TCEP.

**Background:** IGF2BP3 (Insulin Like Growth Factor 2 mRNA Binding Protein 3), also called as VICKZ3, IMP3 or KOC1, is a member of the insulin-like growth factor 2 mRNA-binding protein family. The mammalian IGF2 mRNA binding proteins (IGF2BPs) family encompasses three RNA-binding proteins (RBPs) controlling the cytoplasmic fate of mRNAs in development, somatic cells and human diseases. IGF2BPs are RNA-binding factors that recruit target transcripts to cytoplasmic protein-RNA complexes (mRNPs). This transcript 'caging' into mRNPs allows mRNA transport and transient storage. It also modulates the rate and location at which target transcripts encounter the translational apparatus and shields them from endonuclease attacks or microRNA-mediated degradation. It functions by binding to the mRNAs of certain genes, including insulin-like growth factor 2, beta-actin and beta-transducin repeat-containing protein, and regulating their translation. IGF2BP3 has been reported to be involved in the progression of various cancers, including those in the pancreas, colon or rectum, lungs, and ovaries. According to a study, it is associated with aggressive tumor features and unfavorable outcomes. Recent studies revealed that the association of IGF2BPs with target mRNAs, e.g. the MYC mRNA, is enhanced by the N6-methyladenosine (m6A) modification of target transcripts suggesting IGF2BPs as novel m6A readers. N6-methyladenosine (m6A) is the most prevalent modification in eukaryotic RNAs. The biological importance of m6A relies on m6A readers, which control mRNA fate and function.

**Protein Details:** Full length human IGF2BP3 protein (accession number NP\_006538.2) was expressed in a baculovirus system with an N-terminal FLAG-Tag. The molecular weight of the protein is 65 kDa.

**Application Notes:** This product was manufactured as described in Protein Details. Where possible, Active Motif has developed functional or activity assays for recombinant proteins. Additional characterization such as enzyme kinetic activity assays, inhibitor screening or other biological activity assays may not have been performed for every product. All available data for a given product is shown on the lot-specific Technical Data Sheet.

**Storage and Guarantee:** Recombinant proteins in solution are temperature sensitive and must be stored at -80°C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage. This product is guaranteed for 6 months from date of arrival.

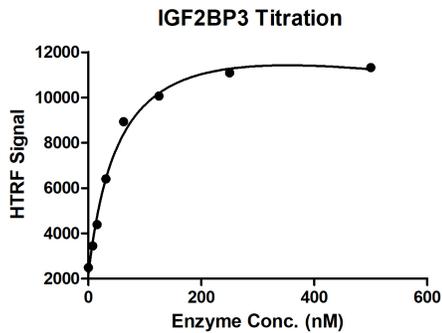


### Recombinant IGF2BP3 protein gel

10% SDS-PAGE with Coomassie blue staining

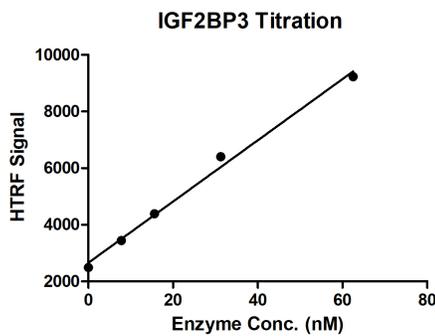
MW: 65 kDa

Purity: >85%



### HTRF for IGF2BP3 activity

1  $\mu$ M ACTB zipcode ssDNA (1212-1313) was incubated with different concentrations of IGF2BP3 protein in a 10  $\mu$ l reaction system containing 50 mM HEPES-NaOH pH 7.5, 0.1% BSA for 1 hour, then 10  $\mu$ l anti-FLAG antibody and SA-XL665 mixture (1:100 dilution in the same buffer) was added to each reaction system and incubated for 30 min. All the operations and reactions were performed at room temperature. HTRF assay was used for detection.



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