

## Product datasheet for **MC206715**

### Igf2bp1 (BC051679) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Igf2bp1 (BC051679) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Igf2bp1
Synonyms:	CRD-BP, IMP-1, Neilsen
Mammalian Cell Selection:	Neomycin
Vector:	PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection:	Kanamycin (25 ug/mL)



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**Fully Sequenced ORF:** >BC051679  
CAGCCCGCTCGCAGGGGTTTCGGACCGAAGGGAAGGAGCCGCGCCGCTCGTCTGTCAGCCTCCCCTGCAC  
TCGGCGGGCACTTCTCCCGGGCTCACCCAACTCTCCCGTGACCCCGCGTGCCCTCAGGCCGCCACCC  
GCCCCGAGCTCCGGACAACCTCAGGGGTGGGTGCGTAGAAAATTGCGGCTCCCGCCGCCGTCTCCAC  
GCCTCTCGGCCTAGGAGGCTCTCCGCCCGCGCCCGCCGGCTCGGCTTGCTGGAACCGTGTCTTGCC  
CCGCCACCGCCACCATGAACAAGCTTTACATCGGCAACCTCAACGAGAGTGTGACCCCGCAGACTTGGA  
GAAAGTATTCGCGGAGCACAAGATCTCCTACAGCGGCCAGTTCTTGTTCAAATCCGGCTACGCCTTCGTG  
GATTGCCCGACGAGCACTGGGCGATGAAGGCCATCGAAACTTTCTCGGGGAAAAGTAGAACTGCAAGGAA  
AACGTCTAGAGATTGAACACTCAGTCCCCAAAAACAAGGAGTCGGAATAACAGATCCGAATATTCC  
ACCTCAGTCCGATGGGAAGTGCTAGATAGCCTGCTGGCTCAGTACGGTACAGTGGAGAAGTGTGAGCAA  
GTGAACACTGAAAGTGAGACAGCTGTGGTCAACGTCACTACTTAACCGGGAGCAGACCAGGCAAGCTA  
TCATGAAGCTAAATGGCCATCACTGGAGAACCATGCCCTGAAGGTCTCTACATACCTGATGAGCAGAT  
AACGCAAGGTCTGAGAATGGGCGTCGTGGAGGCTTTGGGTCTCGGGGCCAGCCCGGCAAGGGTCGCCC  
GTGGCAGCAGGGGCTCCAGCCAAGCAGCAGCCAGTGGACATCCCTCTCCGGCTCTGGTGCCTACGCAGT  
ATGTAGGCGCTATCATTGGCAAGGAGGGTGCCACCATCCGAAACATCACAAAACAGACGCAGTCCAAAAT  
AGACGTGCATAGGAAGGAGAATGCGGGCGCTGCGGAGAAGGCCATCAGCGTGCATTCAACCCCTGAAGGC  
TGCTCCTCCGCGTGCAAGATGATCTTGGAGATTATGCACAAGGAGGCAAGGACACCAAAACGGCAGATG  
GAGTTCCTCCTGAAGATCCTGGCTCATAACAACCTTCGTGCGGCGACTCATTGGCAAGGAAGGGCGAACCT  
GAAGAAGGTGGAGCAGGACACAGAGACGAAGATCACCATCTCATCGCTCCAGGACCTCACGCTCTATAAC  
CCTGAGAGGACCATCACTGTGAAGGGGCCATTGAGAAGTGTGTCAGGGCCGAGCAGGAGATCATGAAGA  
AAGTTCGAGAGGCTTACGAGAACGACGTGGCCGCCATGAGCTTGAGTCCACCTCATCCTGGGCTTAA  
CCTGGCTGCTGTAGGTCTCTTCCAGCTTCATCCAGCGCTGTCCCTCCTCCTCCAGCAGTGTACCCGGG  
GCTGCTCCCTATAGCTCCTTCATGCAGGCTCCGGAGCAGGAGATGGTACAAGTGTTCATCCCCGCCAGG  
CTGTGGCGGCCATCATTGGCAAGAAGGGCCAGCACATCAACAACCTCTCCGCTTCGCCAGCGCCTCCAT  
CAAGATTGCACCACCAGAAACACCTGACTCCAAAGTTCGAATGGTCGTCTCACTGGACCCCGAGGGCT  
CAGTTCAAGGCCCAGGGAAGAATCTATGGCAAACTAAAAGAAGAGAATTTCTTTGGTCCCAAGGAGGAAG  
TAAAGCTAGAGACCCACATACGGGTTCCGGCTTCAGCAGCCGCGCGTGTATCGGCAAGGCGGCAAAAC  
GGTGAATGAGCTGCAGAACTTGACCGCAGCTGAGGTGGTAGTGCCAAGAGACCAGACCCCGATGAGAAC  
GACCAAGTCATTGTTAAGATCATCGACATTTCTATGCCAGCCAGATGGCTCAGCGGAAGATCCGAGACA  
TCCTGGCTCAAGTTAAGCAACAGCACCAGAAGGGACAGAGCAACCTGGCCAGGCTCGGAGGAAGTGACC  
CCGCCCTCCTGTCCCATTGGCTCCAAGATCAGCAGGAGGAACACAGAAGTGGAGGGGCGGGTGGAGGG  
CCGGTGTGCTCTTCCAGCAGGCCTGAGAATGAGTGGGAATCAGGGCATTGGGCTGGCTGGAGATCAG  
GTTTGCACTGTCTTGAGAACAATGTTCCAGTGAGGAATCCTGATCTCTCGCCCCCAATTGAGCCAGCT  
GGCCACAGCCACCCCTTGAATATCACCATTGCAATCATAGCTTGGGTTGCTTTAAACGTGGATTGTC  
TTGAAGTTCTCCAGCCTCCATGGAAGGATGGGTGAGATCCAGTGGGGAAGAGAAATAAAATTTCTTCA  
GGTTTTTTAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

**Restriction Sites:** EcoRI-NotI

**ACCN:** BC051679

**Insert Size:** 1734 bp

**OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

**Reconstitution Method:**

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

**RefSeq:** [BC051679](#), [AAH51679](#)

**RefSeq Size:** 2444 bp

**RefSeq ORF:** 1734 bp

**Locus ID:** 140486

**Cytogenetics:** 11 59.08 cM

**Gene Summary:**

RNA-binding factor that recruits 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. Regulates localized beta-actin/ACTB mRNA translation, a crucial process for cell polarity, cell migration and neurite outgrowth. Co-transcriptionally associates with the ACTB mRNA in the nucleus. This binding involves a conserved 54-nucleotide element in the ACTB mRNA 3' UTR, known as the 'zipcode'. The RNP thus formed is exported to the cytoplasm, binds to a motor protein and is transported along the cytoskeleton to the cell periphery. During transport, prevents ACTB mRNA from being translated into protein. When the RNP complex reaches its destination near the plasma membrane, IGFBP1 is phosphorylated. This releases the mRNA, allowing ribosomal 40S and 60S subunits to assemble and initiate ACTB protein synthesis. Monomeric ACTB then assembles into the subcortical actin cytoskeleton (By similarity). During neuronal development, key regulator of neurite outgrowth, growth cone guidance and neuronal cell migration, presumably through the spatiotemporal fine tuning of protein synthesis, such as that of ACTB (By similarity). May regulate mRNA transport to activated synapses (By similarity). Binds to the 3' UTR of CD44 mRNA and stabilizes it, hence promotes cell adhesion and invadopodia formation in cancer cells (By similarity). Binds to the oncofetal H19 transcript and regulates its localization (By similarity). Binds to and stabilizes BTRC/FBW1A mRNA (By similarity). Binds to the adenine-rich autoregulatory sequence (ARS) located in PABPC1 mRNA and represses its translation. PABPC1 mRNA-binding is stimulated by PABPC1 protein. Prevents BTRC/FBW1A mRNA degradation by disrupting microRNA-dependent interaction with AGO2 (By similarity). During cellular stress, such as oxidative stress or heat shock, stabilizes target mRNAs that are recruited to stress granules, including CD44, IGF2, MAPK4, MYC, PTEN, RAPGEF2 and RPS6KA5 transcripts (By similarity). Interacts with GAP43 transcript and transports it to axons. Binds to the 3' UTR of IGF2 mRNA by a mechanism of cooperative and sequential dimerization and regulates IGF2 mRNA subcellular localization and translation. Binds to MYC mRNA, in the coding region instability determinant (CRD) of the open reading frame (ORF), hence prevents MYC cleavage by endonucleases and possibly microRNA targeting to MYC-CRD. Binds to and stabilizes ABCB1/MDR-1 mRNA. Binds to the neuron-specific TAU mRNA and regulates its localization. Plays a direct role in the transport and translation of transcripts required for axonal regeneration in adult sensory neurons. During interstitial wound repair, interacts with and stabilizes PTGS2 transcript. PTGS2 mRNA stabilization may be crucial for colonic mucosal wound healing. [UniProtKB/Swiss-Prot Function]