

## Product datasheet for **RC220616**

### **BIN1 (NM\_004305) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	BIN1 (NM_004305) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	BIN1
Synonyms:	AMPH2; AMPHL; CNM2; SH3P9
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC220616 representing NM\_004305  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGGCAGAGATGGGCAGTAAAGGGGTGACGGCGGGAAAGATCGCCAGCAACGTGCAGAAGAAGCTCACCC  
 GCGCGCAGGAGAAGTTCTCCAGAAGCTGGGGAAGGCAGATGAGACCAAGGATGAGCAGTTTGAGCAGTG  
 CGTCCAGAATTTCAACAAGCAGCTGACGGAGGGCACCCGGCTGCAGAAGGATCTCCGGACCTACCTGGCC  
 TCCGTCAAAGCCATGCACGAGGCTTCCAAGAAGCTGAATGAGTGTCTGCAGGAGGTGATGAGCCCGATT  
 GGCCCGCAGGGATGAGGCAAACAAGATCGCAGAGAACAACGACCTGCTGTGGATGGATTACCACCAGAA  
 GCTGGTGGACCAGGCGTGTGACCATGGACACGTACCTGGGCCAGTTCCCGACATCAAGTCACGCATT  
 GCCAAGCGGGGGCGCAAGCTGGTGGACTACGACAGTCCCGGCACCCTACGAGTCCCTTCAAAGTCCCA  
 AAAAGAAGGATGAAGCCAAAATTGCCAAGGCCGAGGAGGAGCTCATCAAAGCCCAGAAGGTGTTGAGGA  
 GATGAATGTGGATCTGCAGGAGGAGCTGCCGTCCCTGTGGAACAGCCGCTAGGTTTCTACGTCAACACG  
 TTCCAGAGCATCGCGGGCTGGAGGAAAATTCACAAGGAGATGAGCAAGCTCAACCAGAACCTCAATG  
 ATGTGCTGGTCCGGCTGGAGAAGCAACCGGGAGCAACACCTTACGGTCAAGGCCACGCCAGAAAGAA  
 AAGTAACTGTTTTCGCGGCTGCGCAGAAAGAAGAACAGTGACAACGCGCTGCAAAAAGGGAACAAGAGC  
 CCTTCGCCTCCAGATGGCTCCCTGCGGCCACCCCGAGATCAGAGTCAACCACGAGCCAGAGCCGGCCG  
 GCGGGGCCACGCCGGGGCCACCCTCCCAAGTCCCACTCAGCCAGCAGAGGCTCGGAGGTGGCGGG  
 TGGACCAACCTGCGGCTGGAGCCAGGAGCCAGGGGAGACGGCGGCAAGTGAAGCAGCCTCCAGCTCT  
 CTTCTGCTGCTGGTGGAGACCTCCAGCAACTGTGAATGGCACCGTGGAGGGCGGCAGTGGGGCCG  
 GGCGCTTGGACCTGCCCCAGGTTTCATGTTCAAGGTACAGGCCAGCAGACTACAGCCACTGACAC  
 AGACGAGCTGCAGCTCAAGGCTGGTGTGTTGCTGGTATCCCTTCCAGAACCCTGAAGAGCAGGAT  
 GAAGGCTGGCTCATGGGCGTGAAGGAGAGCGACTGGAACCAGCACAAGGAGCTGGAGAAGTGCCGTGGCG  
 TCTTCCCGAGAACTTCACTGAGAGGGTCCCA

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC220616 representing NM\_004305  
 Red=Cloning site Green=Tags(s)

MAEMGSKGVTAGKIASNVQKKLTRAQEKVLQKLGADETKDEQFEQCVQNFNKQLTEGTRLQKDLRTYLA  
 SVKAMHEASKKLNELQEVYEPDWPGRDEANKIAENNDLLWMDYHQKLVQDQALLTMDTYLGGFPDIKSRI  
 AKRGRKLVYDSARHHYESLQTAKKKDEAKIAKEEELIKAQKVFEE MNVDLQEELPSLWNSRVGFVYVNT  
 FQSIAGLEENFHKEMSKLNQNLNDVLVGLEKQHGSNFTVKAQPRKSKLFSRLRRKNSDNAPAKGNKS  
 PSPPDGSPAATPEIRVNHEPEPAGGATPGATLPKSPSPAEASEVAGGTQPAAGAQEPGETAASEAASS  
 LPAVVVETFPATVNGTVEGGSGAGRLDLPFGFMFKVQAQHDYATDDELQLKAGDVVLVIPFQNPPEEQD  
 EGWLMGVKESDWNQHKLEKCRGVFPENF TERVP

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6799\\_f08.zip](https://cdn.origene.com/chromatograms/mk6799_f08.zip)

**Restriction Sites:**

Sgfl-MluI

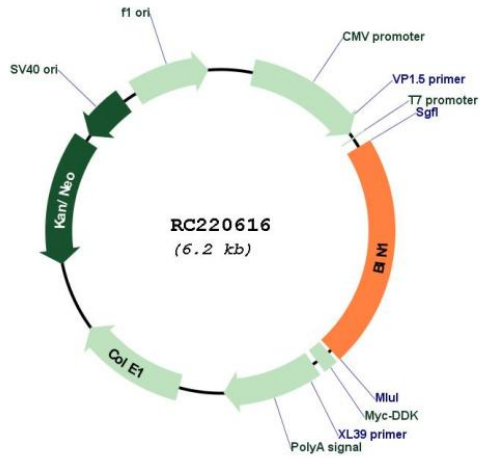
Cloning Scheme:

Cloning sites used for ORF Shutting:



\* The last codon before the Stop codon of the ORF

Plasmid Map:



ACCN: NM\_004305  
 ORF Size: 1362 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**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.

**RefSeq:** [NM\\_004305.4](#)

**RefSeq Size:** 2210 bp

**RefSeq ORF:** 1365 bp

**Locus ID:** 274

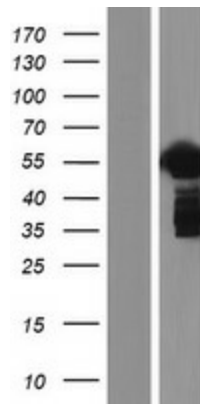
**UniProt ID:** [O00499](#)

**Cytogenetics:** 2q14.3

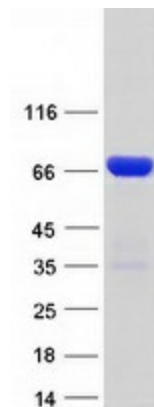
**MW:** 50 kDa

**Gene Summary:**

This gene encodes several isoforms of a nucleocytoplasmic adaptor protein, one of which was initially identified as a MYC-interacting protein with features of a tumor suppressor. Isoforms that are expressed in the central nervous system may be involved in synaptic vesicle endocytosis and may interact with dynamin, synaptojanin, endophilin, and clathrin. Isoforms that are expressed in muscle and ubiquitously expressed isoforms localize to the cytoplasm and nucleus and activate a caspase-independent apoptotic process. Studies in mouse suggest that this gene plays an important role in cardiac muscle development. Alternate splicing of the gene results in several transcript variants encoding different isoforms. Aberrant splice variants expressed in tumor cell lines have also been described. [provided by RefSeq, Mar 2016]

**Product images:**

Western blot validation of overexpression lysate (Cat# [LY418073]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC220616 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified BIN1 protein (Cat# [TP320616]). The protein was produced from HEK293T cells transfected with BIN1 cDNA clone (Cat# RC220616) using MegaTran 2.0 (Cat# [TT210002]).