

## Product datasheet for **MR230528**

### Add2 (NM\_001271861) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Add2 (NM_001271861) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Add2
Synonyms:	2900072M03Rik; add97
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>MR230528 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGAGCGAGGACACGGTCCCGAGGCGGCCTCCCGCCACCCTCTCAGGGGCAGCACTACTTTGACCGGT  
 TCTCTGAAGATGATCCTGAGTACTTGCAGCTTCGCAACCGTGCAGCTGACCTGCGACAGGACTTCAACT  
 GATGGAGCAGAAGAAGAGGGTCACCATGATCCTGCAGAGCCCTTCTTTCAGGGAGGAGCTGGAAGGCCTC  
 ATCCAGGAGCAAATGAAGAAGGGCAACAACTCCTCCAACATCTGGGCCCTCCGACAGATCGCGGACTTCA  
 TGGCCAGCACCTCCACGCAGTCTTCCAGCTTCTCCATGAACCTTCCATGATGACACCCATCAACGA  
 CCTCCACACTGCCGACTCCCTGAACCTGGCCAAGGGGAGAGGCTTATGCGGTGCAAGATCAGCAGCGTC  
 TACCGTCTCTGGACCTCTACGGCTGGGCGCAGCTCAGTGACACCTACGTACGCTGAGAGTGAGCAAGG  
 AGCAGGACCACTTCTGATCAGCCCAAGGGGTTTCTGCAGCGAGGTACAGCCTCCAGCCTGATTAA  
 AGTGAACATTCTGGGAGAGGTGGTGGAGAAGGGCAGCAGTTGCTTCCCGTGGACACCACGGGCTTCACT  
 CTGCACTCAGCCATCTATGCCGCCAGGCCCGACGTGCGGTGTGCCATCCACTGCACACGCTGCCACCG  
 CAGCGGTGTCAGCTATGAAGTGGCGCTCCTGCCGGTCTCCCATAAATGCCCTGCTGGTGGGGACATGGC  
 TACTATGACTTCAATGGGGAAATGGAGCAGGAAGCTGACCGAATCAACTTGCAGAAGTGCTTGGACCC  
 ACCTGCAAGATTCTGGTCTAAGAAACCATGGCATGGTCGCCCTGGGTGACACCGTGGAGGAAGCTTTCT  
 ACAAGGTCTTCCATCTGCAGGCTGCGTGTGAGGTACAGGTGTGCGCTCTGTCCAGTGTGGGGGCACTGA  
 GAACCTCATCTTGGAGCAAGAGAAACACCGGCCGACGAGGTGGGCTCTGTGCAGTGGGCCGCGCAGC  
 ACCTTCGGGCCCATGCAGAAGAGCCGGCTGGGAGAGCATGAATTTGAAGCCCTCATGAGGATGCTGGACA  
 ATTTAGGCTACAGAACAGGCTATACGTACCGCCACCCCTTTGTCCAAGAGAAAACCAACAAAAAGTGA  
 AGTGGAGATCCCAGCCACAGTCACTGCCTTTGTGTTTGAAGAGGATGGAGTCCCAGTCCCCGCCCTGCGC  
 CAGCACGCCCAGAAGCAGCAGAAGGAAAAGACCCGCTGGCTTAACACTCCCAACACCTACCTGCGGGTGA  
 ACGTGGCTGACGAGGTGCAGAGGAACATGGGCAGTCCCCGACAAAGACCACGTGGATGAAGGCTGATGA  
 AGTGGAAAAGTCCAGCAGCGGCATGCCATACGGATTGAAAACCAACCAATTTGTGCCTCTCTACACT  
 GACCCCGAGGAAGTTCTGGACATGAGGAACAAGATTCGAGAGCAAAACCGACAAGACATAAAGTCAGCCG  
 GGCTCAGTCTCAGCTCTGGCCAGTGCATCGCAGAGAAGAGCCGGAGTCCGGTACAGCAGAGACTGCC  
 CCCAACCGAAGGGGAAGTGTATCAGACTCTGGGCTGGGCAGGGGACCCCTGAGTCTCAGGCCCGCTC  
 ACCCA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>MR230528 protein sequence  
 Red=Cloning site Green=Tags(s)

MSEDTVPEAASPPPSQGHYFDRFSEDDPEYLRLRNRAADLRQDFNLMEQKRVMTILQSPSFREELEGL  
 IQEQMKKGNSSNIWALRQIADFMASHTAVFPASSMNF SMMTPINDLHTADSLNLAKGERLMRCKISSV  
 YRLLDLYGWAQLSDTYVTLRVSKEQDHFLISPKGVSCSEVTASSLIKVNILGEVVEKGSSCFVDTTGF  
 LHSIYAARPVRCALHLHTPATAAVSAMKCGLLPVSHNALLVGDMAYYDFNGEMEQEADRINLQKCLGP  
 TCKILVLRNHGMVALGDTVEEAFYKVFHLQAACEVQVSALSSAGGTENLILLEQEKHRPHEVGSVQWAGS  
 TFGPMQKSRLGEHEFEALMRMLDNLGYRTGYTYRHPFVQEKTKHKSEVEIPATVTAFFVEEDGVPVPLR  
 QHAQKQKQEKTRWLNTPNTYLRVNVAVEVQRNMGSPRPKTTWMKADEVKSSSGMPIRIENPNQFVPLYT  
 DPQEVLDMRNKIREQNRQDIKSAGPQSLLASVIAEKSRSPVQQLRPTEGEVYQTPGAGQGTPESSGPL  
 TP

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_001271861

**ORF Size:** 1689 bp

**OTI Disclaimer:** 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\\_001271861.1](#), [NP\\_001258790.1](#)

**RefSeq Size:** 3298 bp

**RefSeq ORF:** 1689 bp

**Locus ID:** 11519

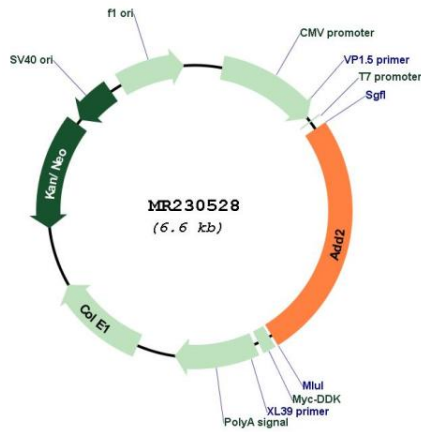
**UniProt ID:** [Q9QYB8](#)

**Cytogenetics:** 6 37.55 cM

**MW:** 62.8 kDa

**Gene Summary:** This gene encodes the beta subunit of the adducin family. Adducins, encoded by alpha, beta and gamma genes, are heteromeric proteins that crosslink actin filaments with spectrin at the cytoskeletal membrane. This protein, primarily found in the brain and hematopoietic cells, is regulated by phosphorylation and calmodulin interactions as it promotes spectrin assembly onto actin filaments, bundles actin and caps barbed ends of actin filaments. In mouse, deficiency of this gene can lead to mild hemolytic anemia and impaired synaptic plasticity. Mutations of this gene in mouse serve as a pathophysiological model for hereditary spherocytosis and hereditary elliptocytosis. Alternative splicing results in multiple transcript variants that encode different protein isoforms. [provided by RefSeq, Dec 2012]

**Product images:**



Circular map for MR230528