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# Product datasheet for MR223395

## Add2 (NM_013458) Mouse Tagged ORF Clone

### Product data:

| | |
|---|---|
| **Product Type:** | Expression Plasmids |
| **Product Name:** | Add2 (NM_013458) 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) |

**ORF Nucleotide Sequence:**

>MR223395 representing NM_013458
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGAGCGAGGACACGGTTCCCGAGGCGGCCTCCCCGCCACCCTCTCAGGGGCAGCACTACTTTGACCGGT
TCTCTGAAGATGATCCTGAGTACTTGCGACTTCGCAACCGTGCAGCTGACCTGCGACAGGACTTCAACTT
GATGGAGCAGAAGAAGAGGGTCACCATGATCCTGCAGAGCCCTTCTTTCAGGGAGGAGCTGGAAGGCCTC
ATCCAGGAGCAAATGAAGAAGGGCAACAACTCCTCCAACATCTGGGCCCTCCGACAGATCGCGGACTTCA
TGGCCAGCACCTCCCACGCAGTCTTCCCAGCTTCTTCCATGAACTTCTCCATGATGACACCCATCAACGA
CCTCCACACTGCCGACTCCCTGAACCTGGCCAAGGGGGAGAGGCTTATGCGGTGCAAGATCAGCAGCGTC
TACCGTCTCCTGGACCTCTACGGCTGGGCGCAGCTCAGTGACACCTACGTCACGCTGAGAGTGAGCAAGG
AGCAGGACCACTTCCTGATCAGCCCCAAGGGGGTTTCCTGCAGCGAGGTCACAGCCTCCAGCCTGATTAA
AGTGAACATTCTGGGAGAGGTGGTGGAGAAGGGCAGCAGTTGCTTCCCGGTGGACACCACGGGCTTCAGT
CTGCACTCAGCCATCTATGCCGCCAGGCCCGACGTGCGGTGTGCCATCCACCTGCACACGCCTGCCACCG
CAGCGGTGTCAGCTATGAAGTGCGGCCTCCTGCCGGTCTCCCATAATGCCCTGCTGGTGGGGGACATGGC
CTACTATGACTTCAATGGGGAAATGGAGCAGGAAGCTGACCGAATCAACTTGCAGAAGTGCCTTGGACCC
ACCTGCAAGATTCTGGTGCTAAGAAACCATGGCATGGTCGCCCTGGGTGACACCGTGGAGGAAGCTTTCT
ACAAGGTCTTCCATCTGCAGGCTGCGTGTGAGGTACAGGTGTCGGCTCTGTCCAGTGCTGGGGGCACTGA
GAACCTCATCCTCTTGGAGCAAGAGAAACACCGGCCGCACGAGGTGGGCTCTGTGCAGTGGGCCGGCAGC
ACCTTCGGGCCCATGCAGAAGAGCCGGCTGGGAGAGCATGAATTTGAAGCCCTCATGAGGATGCTGGACA
ATTTAGGCTACAGAACAGGCTATACGTACCGCCACCCCTTTGTCCAAGAGAAAACCAAACACAAAAGTGA
AGTGGAGATCCCAGCCACAGTCACTGCCTTTGTGTTTGAAGAGGATGGAGTCCCAGTCCCCGCCCTGCGC
CAGCACGCCCAGAAGCAGCAGAAGGAAAAGACCCGCTGGCTTAACACTCCCAACACCTACCTGCGGGTGA
ACGTGGCTGACGAGGTGCAGAGGAACATGGGCAGTCCCCGACCAAAGACCACGTGGATGAAGGCTGATGA
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GACCCCCAGGAAGTTCTGGACATGAGGAACAAGATTCGAGAGCAAAACCGACAAGACATAAAGTCAGCCG
GGCCTCAGTCTCAGCTCTTGGCCAGTGTCATCGCAGAGAAGAGCCGGAGTCCGTCTACAGAGAGCCAGCT
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ACTGACCAGGAGCTGGAGGAGTACAAGAAGGAGGTGGAAAGGAAGAAGCTAGAACAGGAGCAGGAAGGGG
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CAGCTACAAGGACAAAACCGAGTCAGTTACCAGTGGCCCCTTGTCCCCAGAGGGCTCGCCCTCTAAGTCA
CCCTCCAAAAAGAAAAAGAAATTCCGAACCCCCTCGTTCCTGAAGAAAAGCAAGAAGAAGGAGAAGGTGG
AATCC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

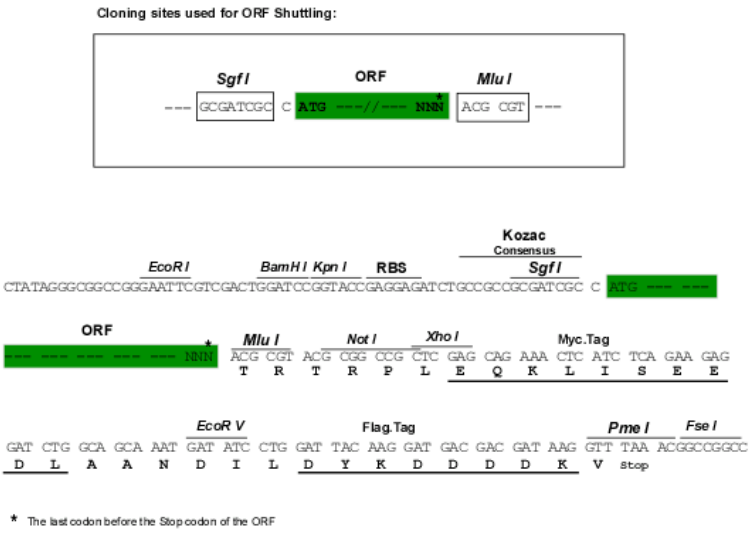
>MR223395 representing NM_013458
Red=Cloning site Green=Tags(s)

MSEDTVPEAASPPPSQGQHYFDRFSEDDPEYLRLRNRAADLRQDFNLMEQKKRVTMILQSPSFREELEGL
IQEQMKKGNNSSNIWALRQIADFMASTSHAVFPASSMNFSMMTPINDLHTADSLNLAKGERLMRCKISSV
YRLLDLYGWAQLSDTYVTLRVSKEQDHFLISPKGVSCSEVTASSLIKVNILGEVVEKGSSCFPVDTTGFS
LHSAIYAARPDVRCAIHLHTPATAAVSAMKCGLLPVSHNALLVGDMAYYDFNGEMEQEADRINLQKCLGP
TCKILVLRNHGMVALGDTVEEAFYKVFHLQAACEVQVSALSSAGGTENLILLEQEKHRPHEVGSVQWAGS
TFGPMQKSRLGEHEFEALMRMLDNLGYRTGYTYRHPFVQEKTKHKSEVEIPATVTAFVFEEDGVPVPALR
QHAQKQQKEKTRWLNTPNTYLRVNVADEVQRNMGSPRPKTTWMKADEVEKSSSGMPIRIENPNQFVPLYT
DPQEVLDMRNKIREQNRQDIKSAGPQSQLLASVIAEKSRSPSTESQLMSKGDADTKDESEETVPNPFSQL
TDQELEEYKKEVERKKLEQEQEGEKDIATEKPGSPVKSTPASPVQSPSKAGTKSPAVSPSKTSEDTKKTE
VSEANTEPEPVKPEGLVVNGKEEEPSVEEALSKGLGQMTTNADTDGDSYKDKTESVTSGPLSPEGSPSKS
PSKKKKKFRTPSFLKKSKKKEKVES

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**




**ACCN:** NM_013458

**ORF Size:** 2175 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_013458.5, NP_038486.2

**RefSeq Size:** 3119 bp

**RefSeq ORF:** 2178 bp

**Locus ID:** 11519

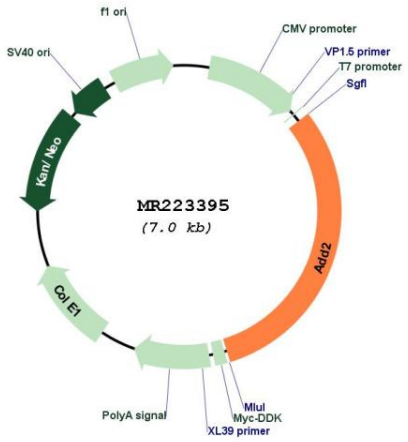
**UniProt ID:** Q9QYB8

**Cytogenetics:** 6 37.55 cM

**MW:** 81.1 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 MR223395