

Product datasheet for **RC212102**

Adducin 2 (ADD2) (NM_017482) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Adducin 2 (ADD2) (NM_017482) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Adducin 2
Synonyms:	ADDB
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC212102 representing NM_017482
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAGCGAAGAGACGGTCCCCGAGGCTGCCTCGCCCGCCCGCCCGCAGGGGCAGCCTTACTTTGACCCT
 TCTCAGAGGACGACCCCGAGTACATGCGCTTCGCAACCGGGCGGCGACCTGCGGCAGGACTTCAACCT
 GATGGAGCAGAAGAAGCGCGTCACCATGATCCTGCAGAGTCCCTCTTTACGGGAGGAGCTGGAAGCCCTC
 ATCCAGGAGCAGATGAAGAAGGGGAACAACTCCTCCAACATCTGGGCCCTGCGACAGATCGCGGACTTCA
 TGGCCAGCACCTCCACGCAGTCTCCCGACATCTTCCATGAATGTCTCCATGATGACGCCTATCAATGA
 CCTCCACACAGCTGACTCCCTGAACCTGGCCAAAGGGGAGCGGCTCATGCGGTGCAAGATCAGCAGTGTC
 TACCGACTCCTGGACCTCTATGGCTGGGCCAGCTGAGTGACACCTATGTACGTTGAGAGTCAGCAAGG
 AGCAGGACCACTTCTGATCAGCCCTAAGGGAGTTTCTTGCAGTGAAGTACAGCGTCCAGCCTGATCAA
 GGTGAACATTCTGGGAGAGGTGGTGGAGAAGGGCAGCAGCTGCTTCCAGTGGACACCACAGGCTTCTGT
 CTGCACTCGGCCATCTATGCAGCGAGGCCCGACGTGCGCTGCATCATCCACCTGCACACACCGGCCACAG
 CAGCGGTGTCGGCCATGAAGTGGGGCTCCTGCCTGTCTCCACAATGCCTGCTGGTGGGGGACATGGC
 CTATTATGACTTCAATGGGGAAATGGAGCAGGAAGCCGATCGGATCAACCTGCAGAAGTGCTTGGACCC
 ACCTGCAAGATCCTGGTCTAAGAAACCATGGAGTGGTTGCTCTGGGTGACACGGTAGAGGAGGCATTTT
 ACAAGATCTTCCACCTGCAGGCTGCATGTGAGATACAGGTGTGGCTCTGTCCAGTGCAGGGGGAGTGGA
 GAACCTCATCCTCTGGAGCAGGAGAAGCACCGGCCCATGAGGTGGGCTCCGTGCAGTGGGCCGGGAGC
 ACCTTTGGCCTATGCAGAAGAGTCGGCTGGGGGAGCATGAGTTTGAGGCCCTCATGAGGATGCTGGACA
 ACCTGGGCTACAGAACAGTTACACGTATCGCCACCCCTTTGTTCAAGAGAAAACCAACACAAAAGTGA
 GGTGGAGATTCAGCCACGGTCAACGCTTCTGTGTTGAGGAGGACGGTGCAGCGGCGCCCGCTGCGA
 CAGCATGCCCAGAAGCAGCAGAAGGAGAAGACCCGCTGGCTCAATACGCCCAACACCTACCTGCGGGTCA
 ATGTGGCCGATGAGGTCCAGAGGAGCATGGGCAGCCCGACCCAAGACCACGTGGATGAAGGCTGACGA
 GGTGGAGAAAATCCAGCAGTGGCATGCCGATTGCGATCGAAAACCAACCAATTTGTGCCTCTCTATACT
 GACCCCGAGGAAGTACTGGAGATGAGGAACAAGATTCGAGAACAAAACCGACAAGATGTGAAGTCAGCGG
 GGCTCAGTCCCAGCTCCTGGCAGCGTCATTGCCGAGAAGGCCGAGCCCGGTAGAGCAGAGGCTGCC
 CCTGACTGGCGGGAAACGTGTTTGCCTTGCCTCGGGGTCTTGTGCTGGGGCTGGGTTGACAGACCC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC212102 representing NM_017482
 Red=Cloning site Green=Tags(s)

MSEETVPEAASPPPPQGPYFDRFSEDDPEYMRLRNRAADLRQDFNLMEQKRVMTILQSPSFREELEGL
 IQEQMKKGNNSSNIWALRQIADFMASHTAVFPTSSMNVSMMPINDLHTADSLNLAKGERLMRCKISSV
 YRLDLGWAQLSDTYVTLRVSKEQDHFLISPKGVSCSEVTASSLIKVNILGEVVEKGSFCFVDDTGF
 LHSAYIYAARPDVRCIIHLHTPATAAVSAMKWLLPVSHNALLVGDMAYYDFNGEMEQEADRINLQKCLGP
 TCKILVLRNHGVVALGDTVEEAFYKIFHLQAACEIQVSALSSAGGVENLILLEQEKHRPHEVGSVQWAGS
 TFGPMQKSRLGEHEFEALMRMLDNLGYRTGYTYRHPFVQEKTKHKSEVEIPATVTAFFVEEDGAPVPLR
 QHAQKQKQEKTRWLNTPNTYLVRNVADEVQRSMGSPRPKTTWMKADEVEKSSSGMPIRIENPNQFVPLYT
 DPQEVLEMRNKIREQNRQDVKSAGPQSQLLASVIAEKSRSPVEQRLPLTGGETCLPCLRGLVPGAGLQDP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6479_h02.zip

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



ACCN: NM_017482

ORF Size: 1680 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_017482.1](#), [NP_059516.1](#)

RefSeq Size: 2775 bp

RefSeq ORF: 1680 bp

Locus ID: 119

UniProt ID: [P35612](#)

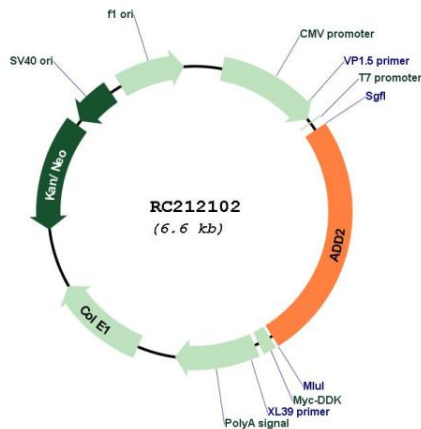
Cytogenetics: 2p13.3

Domains: Aldolase_II

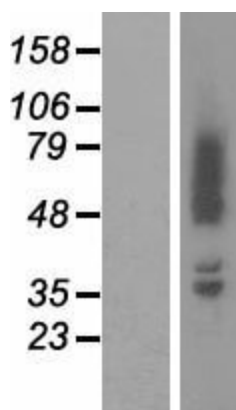
MW: 62.3 kDa

Gene Summary: Adducins are heteromeric proteins composed of different subunits referred to as adducin alpha, beta and gamma. The three subunits are encoded by distinct genes and belong to a family of membrane skeletal proteins involved in the assembly of spectrin-actin network in erythrocytes and at sites of cell-cell contact in epithelial tissues. While adducins alpha and gamma are ubiquitously expressed, the expression of adducin beta is restricted to brain and hematopoietic tissues. Adducin, originally purified from human erythrocytes, was found to be a heterodimer of adducins alpha and beta. Polymorphisms resulting in amino acid substitutions in these two subunits have been associated with the regulation of blood pressure in an animal model of hypertension. Heterodimers consisting of alpha and gamma subunits have also been described. Structurally, each subunit is comprised of two distinct domains. The amino-terminal region is protease resistant and globular in shape, while the carboxy-terminal region is protease sensitive. The latter contains multiple phosphorylation sites for protein kinase C, the binding site for calmodulin, and is required for association with spectrin and actin. Alternatively spliced transcript variants have been described. [provided by RefSeq, Jun 2010]

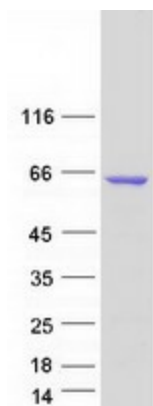
Product images:



Circular map for RC212102



Western blot validation of overexpression lysate (Cat# [LY413766]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC212102 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ADD2 protein (Cat# [TP312102]). The protein was produced from HEK293T cells transfected with ADD2 cDNA clone (Cat# RC212102) using MegaTran 2.0 (Cat# [TT210002]).