

Product datasheet for **SC108904**

Adducin 2 (ADD2) (NM_017482) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Adducin 2 (ADD2) (NM_017482) Human Untagged Clone
Tag:	Tag Free
Symbol:	Adducin 2
Synonyms:	ADDB
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >NCBI ORF sequence for NM_017482, the custom clone sequence may differ by one or more nucleotides

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ATGAGCGAAGAGACGGTCCCCGAGGCTGCCTCGCCGCCGCCCGCAGGGGCAGCCTTACTTTGACCGCT
TCTCAGAGGACGACCCCCAGTACATGCGCCTTCGCAACCGGGCGGCGACCTGCGGCAGGACTTCAACT
GATGGAGCAGAAGAAGCGCGTCACCATGATCCTGCAGAGTCCCTCTTTCAGGGAGGAGCTGGAAGGCCTC
ATCCAGGAGCAGATGAAGAAGGGGAACAACTCCTCCAACATCTGGGCCCTGCGACAGATCGCGGACTTCA
TGCCAGCACCTCCCACGAGTCTTCCCGACATCTTCCATGAATGTCTCCATGATGACGCCTATCAATGA
CCTCCACACAGCTGACTCCCTGAACCTGGCCAAAGGGGAGCGGCTCATGCGGTGCAAGATCAGCAGTGTC
TACCGACTCCTGGACCTCTATGGCTGGGCCAGCTGAGTGACACCTATGTCACGTTGAGAGTCAGCAAGG
AGCAGGACCCTTCTGATCAGCCCTAAGGGAGTTTCTTGCAGTGAAGTACAGCGTCCAGCCTGATCAA
GGTGAACATTCTGGGAGAGGTGGTGGAGAAGGGCAGCAGCTGCTCCCAGTGGACACCACAGGCTTCTGT
CTGCACCTCGGCCATCTATGCAGCGAGGCCCGACGTGCGCTGCATCATCCACCTGCACACACCGGCCACAG
CAGCGGTGTCGGCCATGAAGTGGGGCCTCCTGCCTGTCTCCACAATGCCCTGCTGGTGGGGGACATGGC
CTATTATGACTTCAATGGGGAAATGGAGCAGGAAGCCGATCGGATCAACCTGCAGAAGTGCTTGGACCC
ACCTGCAAGATCCTGGTCTAAGAAACCATGGAGTGGTTGCTCTGGGTGACACGGTAGAGGAGGCATTTT
ACAAGATCTTCCACCTGCAGGCTGCATGTGAGATACAGGTGTCGGCTCTGTCCAGTCCCGGGGAGTGGA
GAACCTCATCCTCCTGGAGCAGGAGAAGCACCGGCCCATGAGGTGGGCTCCGTGCGAGTGGGCCGGGAGC
ACCTTTGGGCTATGCAGAAGAGTCGGCTGGGGGAGCATGAGTTTGAGGCCCTCATGAGGATGCTGGACA
ACCTGGGCTACAGAACAGGTTACACGTATCGCCACCCCTTTGTTCAAGAGAAAACCAACACAAAAGTGA
GGTGGAGATTCCAGCCACGGTACAGCCTTCGTGTTTGAGGAGGACGGTGCCCGGTGCCCGCCCTGCGA
CAGCATGCCAGAGAAGCAGCAGAAGGAGAAGCCCGTGGCTCAATACGCCCAACACCTACTCTGGGATCA
ATGTGGCCGATGAGGTCCAGAGGAGCATGGGCAGCCCGACCCAAGACCAGTGGATGAAGGCTGACGA
GGTGGAGAAATCCAGCAGTGGCATGCCGATTGCGATCGAAAACCAAAACCAATTTGTGCCTCTCTATACT
GACCCCGAGGAAGTACTGGAGATGAGGAACAAGATTGAGAAACAAAACGACAAGATGTGAAGTCAGCGG
GGCCTCAGTCCCAGCTCCTGGCAGCGTCATTGCCGAGAAGAGCCGAAGCCCGGTAGAGCAGAGGCTGCC
CCTGACTGGCGGGAAACGTGTTTGCTTCGGGGTCTTCTGTGCCTGGGGCTGGTTGCAGGACCCCTGA
    
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5' Read Nucleotide Sequence:

>OriGene 5' read for NM_017482 unedited

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CTTCANAATTGTATACGACTCACTATAGCGCGCCGCGATTTCGGCACGAGGCGGGAATGG
CTTTAATTCTGACGGCAGGGCTGTGAGGGACTAGCGGGAACCCGAGCCTTTTGTCAAGGA
ACTGCGGCGTCGGTGGCCAGTCAACCCCGCCGCGGAGCCGCTGCACTGCTGGGGAT
CTCCCAGCAGCTCTGACGAGCGCGGGCTGCAGCATGGGCAGAAAACGCTGCTCTGCAGAT
TAGCTGGGTGGATTTTTTAAGCGCACCCACCCCAAAACCCATAAAAATAACAAAACCAA
CCCGCAGTGGCCGACCGGAGATAGCTAAGATGCCGCGCAGGAGTTTCCACCTGGATGTTT
GAGGTTGTGTAGATGTGGCCGGCACCCCTTGAGAGTGGAGCTAGGGGGTGCAGACTGAGCA
GTGAACAGAAGGAGCCTTGGACAGGGCTGGGCCAGCCTCCCGAGTTCCAGGAGCGAATTG
CAAACCCACCGGAAAATGAGCGAAGAGACGGTCCCCGAGGCTGCCTCGCCGCGCCCGCC
GCAGGGGCAGCCTTACTTTGACCGCTTCTCAGAGGACGACCCGAGTACATGCGCCTTCG
CAACCGGGCGGCGGACCTGCGGCAGGACTTCAACCTGATGGAGCAGAAGAAGCGCGTCAC
CATGATCTGCAGAGTCCCTCTTTCAGGGAGGAGCTGGAAGGCCTCATCCAGGAGCAGAT
GAAGAAGGGGAACAACCTNCTNCAACATCTGGGCCCTGCGACAGATCGCGGACTTCATGGC
CAGCACCTNCCACGAGTCTTCCGACATCTTCCATGAATGTCTNCATGATGACGCCTAT
CAATGACCTNACACAGCTGACTNCCTGAAACCTGCCAAAGGGAGCGGCTCATGCNGTGC
AAGATCAGCAGTGTCTACCGACTCCTGGACCTCTATGCTG
    
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3' Read Nucleotide Sequence:	>OriGene 3' read for NM_017482 unedited GGCCGCAATCTAAAGTCGAGTTTTTTTTTTTTTTTTTTAGCAGAAGGAAGACACACCTTT ATTGCAATCCCTTCTATGGACACTTCCAAGCCATCACTATGCAAATACAGTTGGTGGCCC AAAGCCAGTCAGCCAAAGCCCAGCAAGCATAGCATTGGCTCAAGCAAGCTTCATGCCAGC CATTCCCCACCACTGCCCTCCCCGCCCCACAGCAGTGCAAGCCACAACACAGCATT AGTTATATGCACAACACACAGCAGCTTCAGTGCTCTCAGTCCAACTGTTAGTCCTGTTT CACACACAGTTGTAAGTGACAAAGGGGCCAAGGTTCTGAGTCTCAGATCTTCAACTGC CTGTACCGCAGGTCCTGCAGGGATACTGGCAAATCACTGGGTTTTGCCACCTCTGTGG AGCCCGTGGTTCTAGGGAGCTGACCAGCCGCCCTTACATAAGCTTCAGGAATCTTTGA CCCCTCTAGCCCAAGATAGGAACTAAAATTGACTCCACAGCCTTTTTTCTAATTCAG CATCTCATCTTGGCCTTTGAGGATGCAGTGCTCTGAAGCTGANGAGCANAGAGAGTGAA CCCAAAGGAGGTGAGCCTGGAGGCTGCCAGTCTCCCTGCCCTTGGCCCGCCAGGTCTT CTGCCCTGGGCCCTCCAAAAGAAGGCCAGTANGCCTAATGTAGGGATCATGGGAGC AACCGAGAATCAAGACAAAACCCAGAGAGGGACTCCGAAAGAGCACTTGGGTAATGG GAGGGAGAATTTGCTTGGTTTTTACCAGGGTGCTCATTGAAACGACCTCTCCCTCCCGC CCAAACGGGCATTCTAACTTGACCTCGGAATTAAGGGTCCCCAACTTGCTAACTGG TCGGGGGGGGAATGGGATAAACAACCTTTTCCGGCAGGGGGCCCCCGGGGTGGGT TTGACCGAATATTGCGTTACACAGTCCCGCAAGGAACCTTCGTGTTCCACATTACGCC AGGAAGG
Restriction Sites:	NotI-NotI
ACCN:	NM_017482
Insert Size:	3510 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:	<ol style="list-style-type: none"> 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:	<u>NM_017482.1</u> , <u>NP_059516.1</u>
RefSeq Size:	2775 bp
RefSeq ORF:	1683 bp
Locus ID:	119
UniProt ID:	<u>P35612</u>
Cytogenetics:	2p13.3
Domains:	Aldolase_II

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]

Transcript Variant: This variant (2) differs in the 3' coding region and 3' UTR, compared to variant 1. The resulting isoform (b) has a distinct C-terminus and is shorter than isoform a.