

Product datasheet for **RC230458**

Adducin 2 (ADD2) (NM_001185054) Human Tagged ORF Clone

Product data:

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| Product Type: | Expression Plasmids |
| Product Name: | Adducin 2 (ADD2) (NM_001185054) 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:**

>RC230458 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAGCGAAGAGACGGTCCCCGAGGCTGCCTCGCCGCCGCCCGCAGGGGCAGCCTTACTTTGACCCT
 TCTCAGAGGACGACCCCGAGTACATGCGCTTCGCAACCGGGCGGCGACCTGCGGCAGGACTTCAACCT
 GATGGAGCAGAAGAAGCGCTCACCATGATCCTGCAGAGTCCCTCTTTCAGGGAGGAGCTGGAAGCCCTC
 ATCCAGGAGCAGATGAAGAAGGGGAACAACTCCTCCAACATCTGGGCCCTGCGACAGATCGCGGACTTCA
 TGGCCAGCACCTCCACGCAGTCTTCCGACATCTTCCATGAATGTCTCCATGATGACGCCTATCAATGA
 CCTCCACACAGCTGACTCCCTGAACCTGGCCAAAGGGGAGCGGCTCATGCGGTGCAAGATCAGCAGTGTC
 TACCGACTCCTGGACCTCTATGGCTGGGCCAGCTGAGTGACACCTATGTCACGTTGAGAGTCAGCAAGG
 AGCAGGACCACTTCTGATCAGCCCTAAGGGAGTTTCTTGCAGTGAAGTACAGCGTCCAGCCTGATCAA
 GGTGAACATTCTGGGAGAGGTGGTGGAGAAGGGCAGCAGCTGCTTCCAGTGGACACCACAGGCTTCTGT
 CTGCACTCGGCCATCTATGCAGCGAGGCCCGACGTGCGCTGCATCATCCACCTGCACACACCGGCCACAG
 CAGCGGTGTCGGCCATGAAGTGGGGCTCCTGCCTGTCTCCACAAATGCCTGCTGGTGGGGGACATGGC
 CTATTATGACTTCAATGGGGAAATGGAGCAGGAAGCCGATCGGATCAACCTGCAGAAGTGCCTTGGACCC
 ACCTGCAAGATCCTGGTCTAAGAAACCATGGAGTGGTTGCTCTGGGTGACACGGTAGAGGAGGCATTTT
 ACAAGATCTTCCACCTGCAGGCTGCATGTGAGATACAGGTGTGCGCTCTGTCCAGTGCAGGGGAGTGG
 GAACCTCATCCTCTGGAGCAGGAGAAGCACCGGCCCATGAGGTGGGCTCCGTGCAGTGGCCGGGAGC
 ACCTTTGGGCTATGCAGAAGAGTCGGCTGGGGGAGCATGAGTTTGAGGCCCTCATGAGGATGCTGGACA
 GGTGGAGATTCCAGCCACGGTACAGCTTCCGTTTGGAGGAGCGGTGCCCGGTGCCCGCCTGCGA
 CAGCATGCCCAGAAGCAGCAGAAGGAGAAGACCCGCTGGCTCAATACGCCCAACGCCTACCTGCGGGTCA
 ATGTGGCCGATGAGGTCCAGAGGAGCATGGGCAGCCCCGACCCAAGACCACGTGGATGAAGGCTGACGA
 GGTGGAGAAATCCAGCAGTGGCATGCCGATTGCGATCGAAAACCAACCAATTTGTGCCTCTCTATACT
 GACCCCAAGGAACTACTGGAGATGAGGAACAAGATTCGAGAACAACCAAGATGTGAAGTCAAGCGG
 GGCCTCAGTCCCAGTCTTGGCGAGCGTATTGCCGAGAAGAGCCGAAGCCCGTCTACAGAGAGCCAGCT
 GATGTCCAAGGGAGACGAGGATACCAAAGACGATTGAGAGGAGACGGTGCCCAACCCCTTACGCCAACTC
 ACTGACCAGGAGTTGGAGGAGTACAAGAAAGAGGTGGAGAGGAAGAACTAGAATTGATGGAGAGAAAG
 AAAGTGCAGGAGAGGAGCTGGCTCACCTGCAAAGTCTGCACCTGCTTCTCCAGTGCAGAGCCAGCGAA
 GGAGGCAGAGACAAGAGCCCTTGTAGTCTCCTTCCAAGTCTTGTAGAGGAAGGTAAGAAAGACAGAA
 ACAAGCAAAGCCGCCACCACAGAGCCGAAACAACCCAGCCGGAAGGGGTGGTGGTCAACGGGAGGGAGG
 AGGAGCAGACGGCAGAGGAAATCCTCAGCAAAGGCCTGAGCCAGATGACCACCAAGTGTGACACGGATGT
 TGATACCTCTAAGGACAAAACCGAGTCGGTCCAGCGGCCCATGTCCCAGAGGGCTCACCTTCCAAG
 TCTCCCTCAAAGAAGAAAAGAAATTCCGAACCCCTCCTTCTGAAAAGAGCAAAAAGAGGAGAAAG
 TGGAGTCC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC230458 protein sequence
 Red=Cloning site Green=Tags(s)

MSEETVPEAASPPPPQGQPYFDRFSEDDPEYMRLNRNRAADLRQDFNLMEQKKRVTMILQSPSFREELEGL
 IQEQMKKGNNSSNIWALRQIADFMASHTSHAVFPTSSMNVSMMPINDLHTADSLNLA KGERLMRCKISSV
 YRLLDL YGWAQLSDTYVTLRVSKEQDHFLLISPKGVSCSEVTASSLIKVNILGEVVEKGSSCFVDTTGFC
 LHSAIYAARPDVRCIIHLHTPATAAVSAMKWGLLPVSHNALLVGD MAYYDFNGEME QEADRINLQKCLGP
 TCKILVLRNHGVVALGDTV EEFYKIFHLQAACEIQVSALSSAGGVENLILLEQE KHRPHEVGSVQWAGS
 TFGPMQKSRLGEHEFEALMRMLDNLGYRTGYTYRHPFVQEKT KHKSEVEIPATVTA FVFEEDGAPVPALR
 QHAQKQKQEKTRWLNTPNAYLRVNADEVQRSMGSPRPKTTWMKADEVKSSSGMP IRIENPNQFVPLYT
 DPQEVLEMRNKIREQNRQDVKSAGPQSLLASVIAEKSRSPSTESQLMSKGDEDTKDDSEETVPNPFSQL
 TDQLEEEYKKEVERKLELDGEKETAPEEPGSPAKSAPASPVQSPA KAEATKSPLVSPSKSLEEGTKKTE
 TSKAATTEPETTQPEGVVVNGREEEQTAEEILSKGLSQMTTSADTDVDTSKDKTESVTS GPMSPGSPSK
 SPSKSKKKKFRTPSFLKSKKKEKVES

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6524_d09.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001185054

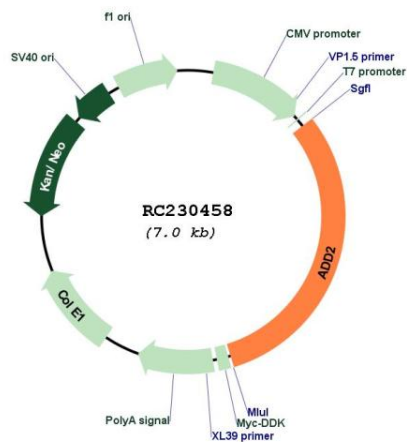
ORF Size: 2178 bp

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.

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| 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_001185054.1, NP_001171983.1</u> |
| RefSeq Size: | 3787 bp |
| RefSeq ORF: | 2181 bp |
| Locus ID: | 119 |
| UniProt ID: | <u>P35612</u> |
| Cytogenetics: | 2p13.3 |
| MW: | 80.8 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 RC230458