

Product datasheet for **RG214407**

gamma Adducin (ADD3) (NM_019903) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	gamma Adducin (ADD3) (NM_019903) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	gamma Adducin
Synonyms:	ADDL; CPSQ3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG214407 representing NM_019903
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAGCTCAGATGCCAGCCAAGCGTGATTACCACTCCTCCTCCTCCAGCATGCCTCACAAAGAGAGAT
 ATTTTGACCGCATCAATGAAAATGACCCAGAATACATTAGGGAGAGGAACATGTCTCCTGATCTACGACA
 AGACTTCAACATGATGGAGCAGAGGAAACGAGTTACTCAGATCCTGCAAAGTCTGCCTTTCGGGAAGAC
 TTGGAATGCCTTATTCAAGAACAGATGAAGAAAGGCCACAACCAACTGGATTACTAGCATTACAGCAGA
 TTGCAGATTACATCATGGCCAATCTTTCTCGGGTTTTCTTACCTCCTCCTCAGTCTTGGCATGGTCAC
 ACCTATCAATGACCTTCTGGTGCAGATACATCCTCATATGTGAAGGGAGAAAACTTACTCGCTGTAAA
 CTTGCCAGCTGTACAGACTTGTAGACTGTGGTGGATGGGCACACCTGGCAAATACCTATATCTCAGTAA
 GAATAAGTAAGGAGCAAGACCACATTATAATAATCCCAGAGGCCTATCTTTTTCTGAAGCTACAGCCTC
 CAATTTGGTGAAGTCAATATAATAGGAGAAGTGGTTGACCAGGGAAGTACCAATTTGAAAATTGACCAT
 ACAGGATTCAGTCCCCATGCTGCAATCTATTCAACACGTCTGATGTTAAGTGTGTGATACACATCCATA
 CCCTTGCAACAGCAGCTGTATCCTCCATGAAATGTGGGATCCTTCCAATTTCTCAAGAGTCTCTTCTCT
 GGGAGATGTTGCCTATTATGACTACCAAGGGTCACTTGAAGAACAGGAGGAGAGAATTCAACTGCAGAAG
 GTTCTGGGACCAAGTTGTAAGGTGCTGGTACTCAGGAATCATGGTGTGGTTGCACCTGGAGAAACATTAG
 AGGAGGCTTTTCATTATATTTTTAATGTGCAACTAGCCTGTGAGATTCAAGTGCAGGCCCTAGCAGGTGC
 AGGTGGAGTAGACAATCTCCATGTAAGTGGACTTTTCCAGAGTATAAAGCTTCACTTACACTGTAGCAGCG
 TCTGGTGGAGGAGGTGTAATATGGGTTCCCATCAAAAATGGAAGGTTGGCGAAAATTGAGTTTGAAGGGC
 TTATGAGGACTCTGGACAACCTGGGGTATAGAACAGGCTATGCTTACAGGCATCCTCTCATTTCGAGAGAA
 GCCTAGGCACAAGAGTGATGTGGAAATCCAGCAACTGTGACTGCTTTTTCTTTGAAAGACGATACAGTG
 CCACTCTCCTCTCAAATACATGGCACAGAGGCAACAGCGTGAAAAACAAGATGGCTGAACTCACCAA
 ATACTTACATGAAAGTGAATGTGCCTGAGGAGTCTCGAACGGAGAAACAGTCCCCGAACCAAAATCAC
 GTGGATGAAAGCAGAAGACTCATCTAAAGTTAGTGGTGGAAACACCTATCAAAATTGAAGATCCAAATCAG
 TTTGTTCTTTAAACACAAACCCGAATGAGGTAAGTAAAGAGAGAAATAAGATTCGGGAACAAAATCGAT
 ATGACTTGAAAACAGCAGGACCACAATCTCAGTTGCTTGTGGAATTGTTGTGGATAAGCCACCTTCTAC
 TATGCAATTTGAAGATGATGATCATGGCCACCAGCTCCTCCTAACCCATTTAGTCATCTCACAGAAGGA
 GAACCTTGAAGAGTATAAGAGGACAATCGAACGTAACAACAAGGCCTAGAAGAAAACCATGAGCTGTTTT
 CCAAGAGCTTCATCTCCATGGAAGTGCCTGTATGGTAGTAAATGGCAAGGATGATATGCATGATGTTGA
 AGATGAGCTTGCTAAGCGAGTGAGTAGGTTAAGCACAAGTACAACCATAGAAAACATCGAGATTACTATT
 AAGTCTCCAGAGAAAATCGAAGAAGTCTGTACCTGAAGGCTCCCCTTCAAAATCGCCATCCAAGAAAA
 AGAAGAAATTCGCACCTCTTCTTTTCTGAAAAAGAACAAAAAAGGAGAAAGTTGAGGCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG214407 representing NM_019903
 Red=Cloning site Green=Tags(s)

MSSDASQGVITTPPPSPMPHKERYFDRINENDPEYIRERNMSPDLRQDFNMMEQRKRVTQILQSPAFRED
 LECLIQEQMKKGHNPTGLLALQQIADYIMANSFSGFSSPPLSLGMVTPINDLPGADTSSYVKGKELTRCK
 LASLYRLVDLFGWAHLANTYISVRISKEQDHIIIPRGLSFSEATASNLVKVNIIGEVVDQGSTNLKIDH
 TGFSPHAAIYSTRPDVKCVIHIHTLATAAVSSMKCGILPISQESLLLGDVAYYDYQGSLEEQEERIQLQK
 VLGPSCKVLVLRNHGVVALGETLEEFHYIFNVQLACEIQVQALAGAGVDNLHVLDLDFQYKAFTYTVAA
 SGGGGVNMGS HQKWKVGEIEFEGLMRTL DNLGYRTGYAYRHPLIREKPRHKSDVEIPATVTA FSFEDDTV
 PLSPLKYMAQRQREKTRWLNSPNTYMKVNVPEESRNGETSPRTKITWMKAEDSSKVS GGTPIKIEDPNQ
 FVPLNTPNEVLEKRNKIREQNR YDLKTAGPQS QLLAGI VVDKPPSTMQFEDDDHGPPAPPNPF SHL TEG
 ELEEYKRTIERKQGLEENHELFSKSFISMEVPMV VNGKDDMH DVEDELAKRV SRLSTSTTIENIEITI
 KSPEKIEEVLSP EGSPSKSPSKKKKKFRTPSFLKKNKKKEKVEA

TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

Cloning Scheme:



ACCN: NM_019903

ORF Size: 2022 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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_019903.5](#)

RefSeq Size: 4195 bp

RefSeq ORF: 2025 bp

Locus ID: 120

UniProt ID: [Q9UEY8](#)

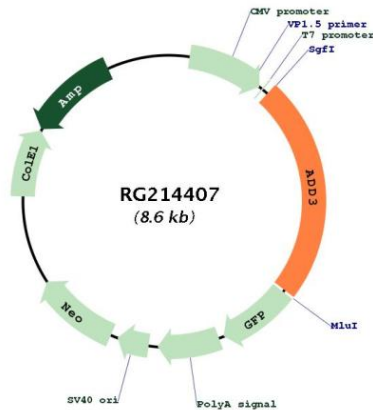
Cytogenetics: 10q25.1-q25.2

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 adducin gamma transcripts encoding different isoforms have been described. The functions of the different isoforms are not known. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG214407