

## Product datasheet for **RG209129**

### **gamma Adducin (ADD3) (NM\_016824) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	gamma Adducin (ADD3) (NM_016824) 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:**

>RG209129 representing NM\_016824  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGAGCTCAGATGCCAGCCAAGGCGTGATTACCACTCCTCCTCCTCCAGCATGCCTCACAAAGAGAGAT  
 ATTTTGACCGCATCAATGAAAATGACCCAGAATACATTAGGGAGAGGAACATGTCTCCTGATCTACGACA  
 AGACTTCAACATGATGGAGCAGAGGAAACGAGTTACTCAGATCCTGCAAAGTCTGCCTTTCGGGAAGAC  
 TTGGAATGCCTTATTCAAGAACAGATGAAGAAAGGCCACAACCAACTGGATTACTAGCATTACAGCAGA  
 TTGCAGATTACATCATGGCCAATCTTTCTCGGGTTTTCTTACCTCCTCCTCAGTCTTGGCATGGTCAC  
 ACCTATCAATGACCTTCTGGTGCAGATACATCCTCATATGTGAAGGGAGAAAACTTACTCGCTGTAAA  
 CTTGCCAGCTGTACAGACTTGTAGACTGTGGTGGATGGGCACACCTGGCAAATACCTATATCTCAGTAA  
 GAATAAGTAAGGAGCAAGACCACATTATAATAATCCAGAGGCCTATCTTTTTCTGAAGCTACAGCCTC  
 CAATTTGGTGAAAGTCAATATAATAGGAGAAGTGGTTGACCAGGGAAGTACCAATTTGAAAATTGACCAT  
 ACAGGATTCAGTCCCATGCTGCAATCTATTCAACACGTCTGATGTTAAGTGTGTGATACACATCCATA  
 CCCTTGCAACAGCAGCTGTATCCTCCATGAAATGTGGGATCCTTCCAATTTCTCAAGAGTCTCTTCTCT  
 GGGAGATGTTGCCTATTATGACTACCAAGGGTCACTTGAAGAACAGGAGGAGAGAATTCAACTGCAGAAG  
 GTTCTGGGACCAAGTGTAAAGGTGCTGGTACTCAGGAATCATGGTGTGGTTCGACTTGGAGAAACATTAG  
 AGGAGGCTTTTCATTATATTTTTAATGTGCAACTAGCCTGTGAGATTCAAGTGCAGGCCCTAGCAGGTGC  
 AGGTGGAGTAGACAATCTCCATGTAAGTGGTTCAGAAAGTAAAGCTTCACTTACACTGTAGCAGCG  
 TCTGGTGGAGGAGGTGTGAATATGGGTTCCCATCAAAAATGGAAGGTTGGCGAAATGAGTTTGAAGGGC  
 TTATGAGGACTCTGGACAACCTGGGGTATAGAACAGGCTATGCTTACAGGCATCCTCTCATTTCGAGAGAA  
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 TTTGTTCTTTAAACACAAACCCGAATGAGGTAAGTAAAGGAGAAATAAGATTCGGGAACAAATCGAT  
 ATGACTTGAAAACAGCAGGACCACAATCTCAGTTGCTTGTGGAATTGTTGTGGATAAGCCACCTTCTAC  
 TATGCAATTTGAAGATGATGATCATGGCCACCAGCTCCTCCTAACCATTTAGTCATCTCACAGAAGGA  
 GAACCTTGAAGAGTATAAGAGGACAATCGAAGTAAACAACAAGGCCTAGAAGATGCTGAGCAGGAATTAC  
 TCTCAGATGACGCTTCATCTGTTTCACAAATTCAGTCTCAAACTCAGTCACCGCAAAATGTCCCTGAAAA  
 ATTAGAAGAAAACCATGAGCTGTTTTCCAAGAGCTTCATCTCCATGGAAGTGCCTGTCATGGTAGTAAAT  
 GGCAAGGATGATATGCATGATGTTGAAGATGAGCTTGCTAAGCGAGTGAAGTAAAGCACAAGTACAA  
 CCATAGAAAACATCGAGATTACTATTAAGTCTCCAGAGAAAATCGAAGAAGTCTGTACCTGAAGGCTC  
 CCCTTCAAAATCGCCATCCAAGAAAAGAAGAAATTCGCACTCCTTCTTTCTGAAAAAGAACAAAAA  
 AAGGAGAAAGTTGAGGCC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG209129 representing NM\_016824  
 Red=Cloning site Green=Tags(s)

```
MSSDASQGVITTPPPSPMPHKERYFDRINENDPEYIRERNMSPDLRQDFNMMEQRKRVTQILQSPAFRED
LECLIQEQQMKKGHNPTGLLALQQIADYIMANSFSGFSSPPLSLGMVTPINDLPGADTSSYVKGEKLRCK
LASLYRLVDFGWAHLANTYISVRISKEQDHIIPRGLSFSEATASNLVKVNIIGEVVDQGSTNLKIDH
TGFSPHAAIYSTRPDVKCVIHIHTLATAAVSSMKCGILPISQESLLLGDVAYDYQGSLEEQEERIQLQK
VLGPSCVKLVLRNHGVVALGETLEEFHYIFNVQLACEIQVQALAGAGGVDNLHVLDFQKYKAFTYTVA
SGGGGVNMGSHQKWKVGEIEFEGLMRTLNDLGYRTGYAYRHPLIREKPRHKSDVEIPATVTAFFEDDTV
PLSPLKYMAQRQREKTRWLNPNNTYMKVNVPEESRNGETSPRTKITWMKAEDSSKVSSTGTPKIEDPNQ
FVPLNTPNEVLEKRNKIREQNRDYLKTAGPQSLLAGIVVDKPPSTMQFEDDDHGPAPPNPFSLHTEG
ELEEYKRTIERKQGLEDAEQELLSDASSVSQIQSQTQSPQNVPEKLEENHELFSKSFISMEVPMVVN
GKDDMHVDEDELAKRVSRLSTSTTIENIEITIKSPEKIEEVLSPGSPSKSPSKKKKKFRTPSFLKKNK
KEKVEA
```

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_016824

**ORF Size:** 2118 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\\_016824.5](#)

**RefSeq Size:** 4454 bp

**RefSeq ORF:** 2121 bp

**Locus ID:** 120

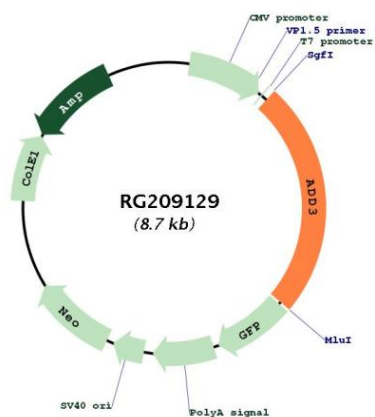
**UniProt ID:** [Q9UEY8](#)

**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 RG209129