

Product datasheet for **RG214902**

ADCY6 (NM_020983) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ADCY6 (NM_020983) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ADCY6
Synonyms:	AC6; LCCS8
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG214902 representing NM_020983 Red=Cloning site Blue=ORF Green=Tags(s)

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GCC**CGATCGCC**

ATGTCATGGTTTGTGGCCTCCTGGTCCCTAAAGTGGATGAACGGAAAACAGCCTGGGGTGAACGCAATG
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CCGGGATGCAGAGCCACCCAGCCCCACCCTGCGGGCCCCCTCGGTGCCCTGGCAGGATGACGCCTT
ATCCGGAGGGGGCGCCAGGCAAGGGCAAGGAGCTGGGGCTGCGGGCAGTGGCCCTGGGCTTCGAGGATA
CCGAGGTGACAACGACAGCGGGCGGACGGCTGAGGTGGCGCCGACCGGTGCCAGGAGTGGGCGATC
CTGCTGGCGCCGTCTGGTGCAGGTGTTCCAGTCAAGCAGTTCGGTTCGGCCAAGCTGGAGCGCCTGAC
CAGCGGTACTTCTCCAGATGAACCAGAGCAGCCTGACGCTGCTGATGGCGGTGCTGGTGTCTCACAG
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GCCCTCTGCGGGCCTCTGGTGCCTGTGTTCTTTGTCTACATCGCCTACACGCTCCTCCCATCCGCAT
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CAGTTCGATGTGTGGTCCAATGATGTGACCCTGGCCAACCACATGGAGGCAGGAGGCCGGGCTGGCCGCA
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AGCGGACCGACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG214902 representing NM_020983
 Red=Cloning site Green=Tags(s)

MSWFSGLLVPKVDERKTAWGERNGQKRSRRRGTTRAGGFCTPRYMSCLRDAEPPSPTPAGPPRCPWQDDAF
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 QFDVWSNDVTLANHMEAGGRAGRIHITRATLQYLNGDYVEPGRGGERNAYLKEQHIETFLILGASQKRK
 EEKAMLAKLQRTRANSMEGLMPRWVPDRAF SRTKDSKAFRQMGIDDSSKDNRTQDALNPEDEVDFLSR
 AIDARSIDQLRKDHVRRFLLTFQREDLEKKYSRKVDPRFGAYVACALLVFCFCFIQLLIFPHSTLMLGI
 YASIFLLLLITVLCVAVYSCGSLFPAKALQRLSRSIVRSRAHSTAVGIFSVLLVFTSAIANMYFIGNMLLS
 LLASSVFLHISSIGKLAMIFVLGLIYLVLLLLGPPATIFDNYDLLGVHGLASSNETFDGLDCAAGRVA
 LKYMTPVILLVFALALYLHAQQVESTARLDLWKLQATGEKEEMEELQAYNRRLLHNILPKDVAHFLAR
 ERRNDELYYQSCECVAVMFASIANFSEFYVELEANNEGVECLRLLEIIADFDEIISEERFRQLEKIKTI
 GSTYMAASGLNASTYDQVGRSHITALADYAMRLMEQMKHINEHSFNNFMKIGLNMGPVAVGIGARKPKQ
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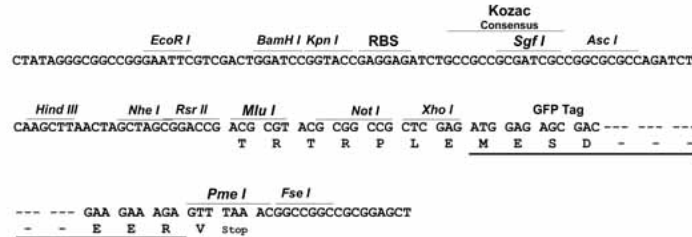
SGPTRRRLE - GFP Tag - V

Restriction Sites:

SgfI-RsrII

Cloning Scheme:

Cloning sites used for ORF Shuttling:


ACCN: NM_020983

ORF Size: 3345 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_020983.2](#), [NP_066193.1](#)
RefSeq Size: 5877 bp

RefSeq ORF: 3348 bp

Locus ID: 112

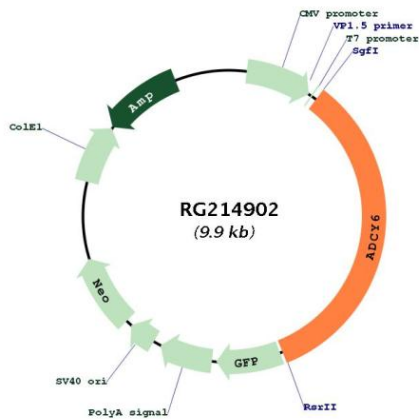
Cytogenetics: 12q13.12

Protein Families: Druggable Genome, Transmembrane

Protein Pathways: Chemokine signaling pathway, Dilated cardiomyopathy, Gap junction, GnRH signaling pathway, Melanogenesis, Oocyte meiosis, Progesterone-mediated oocyte maturation, Purine metabolism, Taste transduction, Vascular smooth muscle contraction

Gene Summary: This gene encodes a member of the adenylyl cyclase family of proteins, which are required for the synthesis of cyclic AMP. All members of this family have an intracellular N-terminus, a tandem repeat of six transmembrane domains separated by a cytoplasmic loop, and a C-terminal cytoplasmic domain. The two cytoplasmic regions bind ATP and form the catalytic core of the protein. Adenylyl cyclases are important effectors of transmembrane signaling pathways and are regulated by the activity of G protein coupled receptor signaling. This protein belongs to a small subclass of adenylyl cyclase proteins that are functionally related and are inhibited by protein kinase A, calcium ions and nitric oxide. A mutation in this gene is associated with arthrogyposis multiplex congenita. [provided by RefSeq, May 2015]

Product images:



Circular map for RG214902