

Product datasheet for **RG212857**

ADCY4 (NM_139247) Human Tagged ORF Clone

Product data:

| | |
|---------------------------|---|
| Product Type: | Expression Plasmids |
| Product Name: | ADCY4 (NM_139247) Human Tagged ORF Clone |
| Tag: | TurboGFP |
| Symbol: | ADCY4 |
| Synonyms: | AC4 |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-AC-GFP (PS100010) |
| E. coli Selection: | Ampicillin (100 ug/mL) |
| ORF Nucleotide Sequence: | >RG212857 representing NM_139247 Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCCCCCTTTCAGCCCCGGCCGCCCCAGCGAAGACCTTCTACGAGACCTACTACAGCCTGA
GCCAGCAGTACCCGCTGCTGCTGCTGCTGCTGGGGATCGTCTGTGCGCTCGCGGCGCTGCTCGCAGT
GGCCTGGCCAGCGGCAGGGAGCTGACCTCAGACCCGAGCTTCTGACCACTGTGCTGTGCGCGCTGGC
GGCTTCTCGTGTGCTGGCCCTCGTTCGCGGAGCAGCGACTGCAGCGCTGGACGCGTCCCCTGTCCG
GCTTGGTATGGGTGCGCTGCTAGCGCTAGGCCACGCCTTCTGTTCACCGGGGGCGTGGTGAAGCCTG
GGACCAAGTGTCTATTTCTCTTCGTCATCTTACGGCGTATGCCATGCTGCCCTTGGCATGCGGGAC
GCCGCCGTGCGGGGCTCGCCTCCTCACTCTCGCATCTGCTGGTCTCGGGCTGTATCTTGGGCCACAGC
CGGACTCACGGCCTGCACTGCTGCCGAGTTGGCAGCAAACGCAGTGTGTTCTGTGCGGGAACGTGGC
AGGAGTGTACCACAAGGCGCTGATGGAGCGCCCTGCGGGCCACGTTCCGGGAGGCACTCAGCTCCCTG
CACTCACGCCGGCGGCTGGACACCGAGAAGAAGCACCAGGAACACCTTCTTGTCCATCCTTCTGCT
ACCTGGCCGAGAGATGAAGGCAGAGATCATGGCAGGCTGCAGGCAGGACAGGGGTACGGCCAGAGAG
CACTAACAAATTTCCACAGCCTCTATGTCAAGAGGCACAGGGAGTCAGCGTGTGTATGCTGACATCGTG
GGCTTACGCGGCTGGCCAGCGAGTGTCCCCTAAGGAGCTGGTGTGCTCATGCTCAATGAGCTTTTGGCA
AGTTCGACCAGATTGCCAAGGAGCATGAATGCATGCGGATCAAGATCCTGGGGGACTGTTACTACTGTGT
CTCTGGGCTGCCACTCTCACTGCCAGACCATGCCATCAACTGCGTGCATGCGCATGGGCTGGACATGTCCGG
GCCATCAGGAACTGCGGCAGCCACTGGCGTGGACATCAACATGCGTGTGGCGTGCCTCAGGCAGCG
TACTGTGTGGAGTCATCGGGCTGCAGAAGTGGCAGTACGACGTTTGGTACATGATGTCACACTGGCTAA
CCACATGGAGGCAGGCGGTGTACCAGGGCGAGTGCACATCACAGGGGCTACCCTGGCCCTGCTGGCAGGG
GCTTATGCTGTGGAGGACGAGGATGGAGCATCGGGACCCTACCTTGGGAGCTAGGGGAGCCTACCT
ATCTGGTATCGATCCACGGGCAGAGGAGGAGGATGAGAAAGGCACTGCAGGAGGCTTGTCTCCTCGT
TGAGGGCCTCAAGATGCGTCCATCACTGCTGATGACCCGTTACCTGGAGTCTGGGGCGCAGCCAAGCCT



```

TTTGGCCACCTGAGCCACGGAGACGCCCTGTGTCCACCTCCACCCCTCTCCCGGAGAAGACCCTGGCTT
CCTTCAGCACCCAGTGGAGCCTGGATCGGAGCCGTACCCCGGGGACTAGATGATGAACTGGACACCGG
GGATGCCAAGTCTTCCAGGTCATTGAGCAGCTCAACTCGCAGAAACAGTGAAGCAGTCGAAGGACTTC
AACCCACTGACACTGTACTTCAGAGAGAAGGAGATGGAGAAAGAGTACCGACTCTCTGCAATCCCGCCT
TCAAATACTATGAAGCCTGCACCTTCTGGTTTTTCTCTCAACTTCATCATCCAGATGCTAGTGACAAA
CAGGCCCCAGCTCTGGCCATCACGTATAGCATCACCTTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCT
TTCTCAGAGGACCTGATGAGGTGTCTCTGAAAGGCCCAAGATGCTGCACTGGCTGCCTGCACTGTCTG
GCCTGGTGGCCACACGACCAGGACTGAGAATAGCCTTGGGCACCGCCACCATCCTCCTTGTCTTTGCCAT
GGCCATTACCAGCCTGTTCTTCTTCCCAACATCATCAGACTGCCCTTTCCAAGCTCCCAATGTGTCTCC
ATGATTTCCAACCTCTCCTGGGAGCTCCCTGGGTCTCTGCCTCTCATCAGTGTCCATACTCCATGCACT
GCTGCACGCTGGGCTTCTCTCTGCTCCCTCTTCTGCACATGAGCTTCGAGCTGAAGCTGCTGCTGCT
CCTGCTGTGGCTGGCGCATCCTGCTCCCTCTTCTGCACTCCCATGCCTGGCTGTGCGAATGCCTCATC
GTCGCTCTATCTGGGCCCTTGGACTCCAGGCCGGAGTGTGAAGGAGCCCAAAGTATGGGTGCTA
TCTCCTTCTTCTTCTTCTTCCACCTCCTTGTCTGGCTCGCCAGAATGAGTACTACTGCCGCTGGA
CTTCTGTGGAAGAAGAAGCTGAGGCAGGAGGGAGGAGACAGAGACGATGGAGAAGCTGACTCGGCTG
CTTTGGAGAAGCTGCTCCTGCACACGTGGCCCCCAGTTCATTGGCCAGAACCAGGCGCAACGAGGATC
TCTACCACAGTCTATGAATGCGTTTGTGTCCTCTTTCGCTCAGTCCCAGACTTCAAGGAGTTCTACTC
TGAATCCAACATCAATCATGAGGGCCTAGAGTGTCTGAGGCTGCTCAATGAGATAATTGCTGATTTTGTG
GAGCTGCTCTCAAGCCCAAGTTCAGTGGGGTGGAGAAGTCAAGACCATCGGCAGCACCTACATGGCAG
CCACAGGCTTAAATGCCACCTCTGGACAGGATGCACAACAGGATGCTGAACGGAGCTGCAGCCACCTTGG
CACTATGGTGAATTTGCCGTGGCCCTGGGGTCTAAGCTGGACGTCATCAACAAGCATTCAACAAC
TTCCGCTGCGAGTGGGGTTGAACCATGGACCCGTAAGTGTGGAGTTATTGGGGCCAGAAGCCGCAAT
ATGACATTTGGGCAACACAGTGAACGTGGCCAGCCGATGGAGAGTACAGGAGTCTTGGCAAAATCCA
AGTACTGAGGAGACAGCATGGGCCCTACAGTCCCTGGGCTACACCTGCTACAGCCGGGGTGTCAACAAG
GTGAAAGGCAAAGGGCAGCTCTGCACCTACTTCTGAACACAGACTTGACACGAAGTGGACCTCCTTCAG
CTACCCTAGGC
    
```

AGCGGACCGACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG212857 representing NM_139247

Red=Cloning site Green=Tags(s)

```

MARLFSRPPPSDELFYETYYSLSQQYPLLLLLLGIIVLCALAALLAVAWASGRELTSFPSFLTTLVLCALG
GFSLLLLGLASREQLQRWTRPLSGLVWVALLALGHAFLLFTGGVVSAWDQVSYFLFVIIFTAYAMPLGMRD
AAVAGLASSLHLLVLGLYLGPPDSRPALLPQLAANAVLFLCGNVAGVYHKALMERALRATFREASSL
HSRRRLDEKKHQEHLHLLSILPAYLAREMKAEIMARLQAGQSRPESTNHFHSLYVYKRHQGVSVLYADIV
GFTRLASECSPKELVLMNLNLFKFDQIAKEHECMRIKILGDCYICVSGPLSLPDHAINCRMGLDMCR
AIRKLRATGVDINMRVGVHSGSVLCGVIQLKQWQYDVVSHDVTLANHMEAGGVPGRVHITGATLALLAG
AYAVEDAGMEHRDPYLRELGEPTYLVIDPRAEEDEKGTAGLLSSLEGLKMRPSLLMTRYLESWGAAP
FAHLSHGDSPVSTSTPLPEKTLASFSTQWSLDRSRTPRGLDDELDTGDAKFFQVIEQLNSQKQWQSKDF
NPLTLYFREKEMEKEYRLSAIPAFKYEACTFLVFLSNFIQMLVTNRPPALAITYSITFLLFLLILFVC
FSEDLMRCVLKGPKMLHWLPALSGLVATRPGLRIALGTATILLVFAMAITSLFFPTSSDCPFQAPNVSS
MISNLSWELPGSLPLISVPYSMHCTLGFLLSCLFLHMSFELKLLLLLLWLAASCSLFLHSHAWLSECLI
VRLYLGPLDSRPGVLKEPKLMGAI SFFIFFFTLLVLARQNEYCYRDLFWKKLRQEREETETMENLTRL
LLENVLPADVAPQFIGQNRNEDLYHQSYECVCLFASVPDFKEFYSESNINHEGLECLRLLEIADFD
ELLSKPKFSGVEKIKTIGSTYMAATGLNATSGQDAQDAERSCSHLGTMVEFAVALGSKLDVINKHSFNN
FRLRVGLNHGPVVAGVIGAKPKQYDIWGNVTNVASRMESTGVLGKIQVTEETAVALQSLGYTCYSRQVGIK
VKGKGLCTYFLNTDLTRTGPPSATLG
    
```

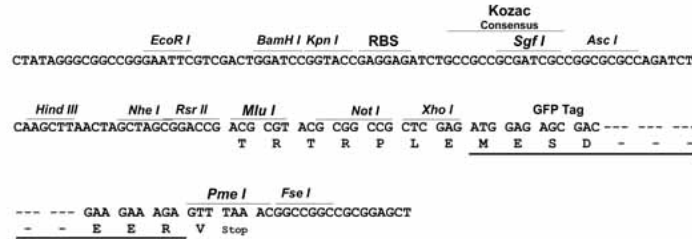
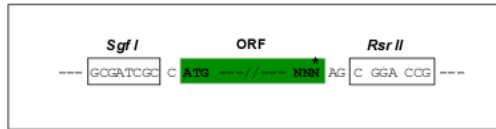
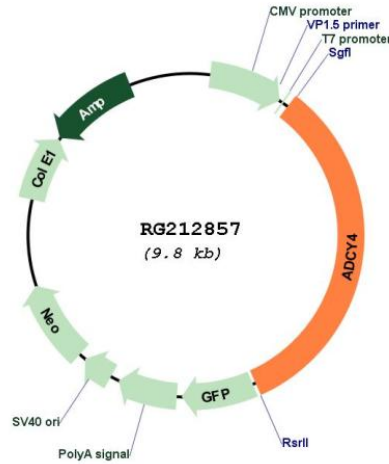
SGPTRRRLE - GFP Tag - V

Restriction Sites:

Sgfl-RsrII

Cloning Scheme:

Cloning sites used for ORF Shuttling:


Plasmid Map:

ACCN: NM_139247

ORF Size: 3231 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: | <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: | NM_139247.4 |
| RefSeq Size: | 3415 bp |
| RefSeq ORF: | 3234 bp |
| Locus ID: | 196883 |
| UniProt ID: | Q8NFM4 |
| Cytogenetics: | 14q12 |
| Domains: | CYCC |
| Protein Families: | Druggable Genome, Transmembrane |
| Protein Pathways: | Calcium signaling pathway, 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 family of adenylate cyclases, which are membrane-associated enzymes that catalyze the formation of the secondary messenger cyclic adenosine monophosphate (cAMP). Mouse studies show that adenylate cyclase 4, along with adenylate cyclases 2 and 3, is expressed in olfactory cilia, suggesting that several different adenylate cyclases may couple to olfactory receptors and that there may be multiple receptor-mediated mechanisms for the generation of cAMP signals. Alternative splicing results in transcript variants. [provided by RefSeq, Nov 2010] |