

## Product datasheet for **MG225447**

### Adcy1 (NM\_009622) Mouse Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Adcy1 (NM\_009622) Mouse Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** Adcy1  
**Synonyms:** AC1; brl; D11Bwg1392e; I-AC; mKIAA4070  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >MG225447 representing NM\_009622  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGCGGGGGCGCCGCGCGGCCAAGGGCGGCGGAGGCGGGCGAGCCCGGGGGCGCAGAGCGGGCGG  
 CCGGGCCGGGCGCGCGGTGGTTCCGGGCGTGTGGCGAGGAGTTCGCGTGCCCGAGCTGGAGGCGCT  
 GTTCCGCGGTACACGTTGCGGCTGGAGCAGGCGGCCACGCTGAAAGCGCTGGCTGTGCTCAGCCTACTG  
 GCGGGCGCCCTGGCGTGGCTGAGCTGCTGGGCGCACCGGGCCAGCGCCGGGCCCTGCCAAGGGGTGCG  
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 GCTGCAGCAGGTCGGTCAGCTGGCGTGTCTTACGCTCACCTTCGCGTACTCTGCTGCCCTTCGCG  
 CTGGGCGGCCCGCAGGAGCTCTGCAGGAGGCGCAATGGGCTCGACGGTCCGCGAGCAGGGGGTTTGGC  
 AACTCCTTTTGGTCACTTCGTGTCTATGCCTTGTGCCGTGCGCAGCCTACTGGCCATCGGCTTCGG  
 GCTGGTGGTGGCTGCCTCGCACTTACTGGTCACAGCCGCTTGGTCCCTGCCAAGCGCCACGTCTCTGG  
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 CAGAGCGCTCCCAGAGGAAGGCCTTCTGCAGGCTCGAACTGCATTGAGGACCGGCTGCGGCTGGAGGA  
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 CAATGAATCCTTTGGCAAGTTTCATGAGTTAGCCACGAAAACCACTGTCCGCAATCAAGATCCTTGGT  
 GACTGCTACTACTGTGTCTGGCTCACCCAGCCTAAGACGGATCACGCCCACTGCTGTGTGGAGATGG  
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 TCACAACATTGAGACCTCTTTATTGTGCCATCCCATCGGAGGAAGATATCCCAGGCTTGATTCTCTCG



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GATATCAAACCAGCCAAGAGGATGAAGTTC AAGACTGTGTGCTATCTGCTGGTGCAGCTCATGCACTGCC  
 GGAAAAATGTTCAAGGCTGAGATCCCCTTCTCCAACGTGATGACCTGCGAGGATGACGACAAGCGGAGGGC  
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 GGTACACGCGTCAACAGGTACATCAGCCGCCTTCTCGAAGCCCGCAGACAGAGCTGGAGATGGCCGATC  
 TGAACCTCTTTACTCTGAAGTACAAACATGTGCAACGAGAACAAAAATACCACCAGCTTCAGGACGAGTA  
 CTTACCAGCGCCGTTGTCTCGCCCTCATCTGGTGCCTTATTTGGGTTATCTACCTCTGGTAATC  
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 GTCCTTATGGGAGAGGCGGAGGCCAGGCCAGCGCCCCACTGTGTCCCAGGCTGGACCCCAAGTCAAG  
 ACCAGGGCTCCCTCCAGCCCCACTAGCCAGTACCTGTATCCACAGCAGCAGGGAAGGAAGCC

AGCGGACCGACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:**

>MG225447 representing NM\_009622  
 Red=Cloning site Green=Tags(s)

MAGAPRQGGGGGAGEPGEAERAAGPGRRGRFRACGEFACPELEALFRGYTLRLEQAATLALAVLSLL  
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 LGGPARRSAGGAMGSTVAEQGVWQLLLVTFVSYALLPVRSLLAIGFGLVVAASHLLVTAALVPAKRPRWL  
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 DFLKPPERIFHKIYIQRHDNVSILFADIVGFTGLASQCTAQELVKLLNELFGKFDLATENHCRRRIKILG  
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 DVTLANVMEAAAGLPKGVHITKTTLAACLNADYEVEPHGHERNTFLRTHNIETFFIVPSHRRKIFPGLILS  
 DIKPAKRMKFKTYCYLLVQLMHRKMFKAIEIPFSNVMTCEDDDKRRALRTASEKLRNRSSFSTNVVYTP  
 GTRVNRYSRLLERQTELEMADLNFFTLKYKHVEREQKYHQLQDEYFTSAVVLALILAALFGLIYLLVI  
 PQSVAVLLLLVFSICFLVACTLYLHITRVQCFPGCLTIQIRTAICVFIIVLIYSVAQGCVVGCLPWAWS  
 QSNSSLVLAAGRRRTVLPALPCESAHHALLCCLVGTLPALIFLVRVSSLPKMILLSGLTTSYILVLELSG  
 YTKVGGGALSGRSYEPIMAILLFSCTLALHARQDVRLRLDYLWAAQAEERDDMERVKLDNKRILFNLL  
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 GPVVAGVIGARRPQYDIWGNVTNVASRMDSTGVQGRIVQTEEVHRLLRKCSYQFVCRGKVSVKGKEMLT  
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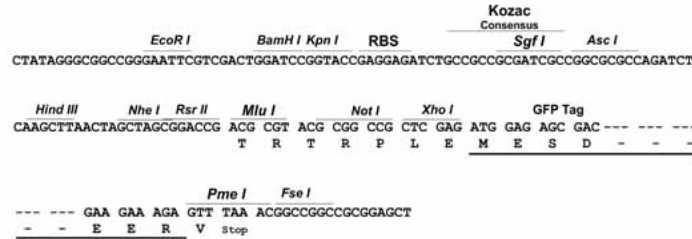
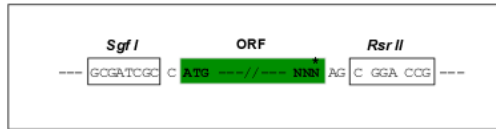
SGPTRRRLE - GFP Tag - V

**Restriction Sites:**

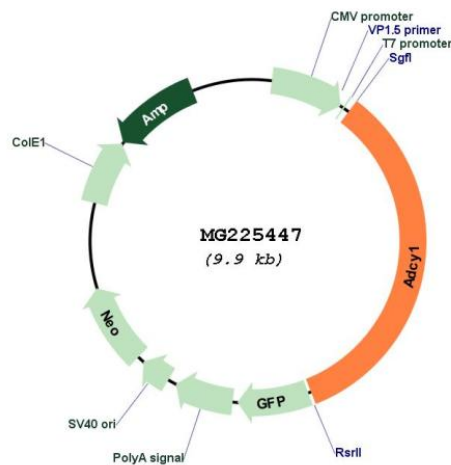
Sgfl-RsrII

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



ACCN: NM\_009622

ORF Size: 3354 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.

<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<u>NM_009622.2</u>
<b>RefSeq Size:</b>	12259 bp
<b>RefSeq ORF:</b>	3357 bp
<b>Locus ID:</b>	432530
<b>UniProt ID:</b>	<u>O88444</u>
<b>Cytogenetics:</b>	11 4.72 cM
<b>Gene Summary:</b>	Catalyzes the formation of the signaling molecule cAMP in response to G-protein signaling. Mediates responses to increased cellular Ca(2+)/calmodulin levels (PubMed:9662407, PubMed:7816821). May be involved in regulatory processes in the central nervous system (PubMed:9662407). May play a role in memory and learning (PubMed:7816821). Plays a role in the regulation of the circadian rhythm of daytime contrast sensitivity probably by modulating the rhythmic synthesis of cyclic AMP in the retina (PubMed:24048828). [UniProtKB/Swiss-Prot Function]