

## Product datasheet for MR231579

### Adcy7 (NM\_001037723) Mouse Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Adcy7 (NM\_001037723) Mouse Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** Adcy7  
**Synonyms:** AA407758  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >MR231579 ORF sequence  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCCAGCCAAGGGGCGCTACTTCTAAATGAGGGTGATGAAGGCCCGACCAGGCAGCGCTCTATGAGA  
AGTACCGGCTCACCAGCTTGACGGGCCACTGCTGCTCTTGTCTCTCTGGTGGCCGGCCACCTGCAT  
TGGCCTCATCAGCATCGCCTTCAGTCATGAGGATCTCCGCAGACACCAGGTTGTCCTGGGACTGCGTTC  
CTCATGCTGACGCTGTTTGGCTCTCTATGTGCTGGTGTATGTCGAGTGCCTGGTGCAGCGGTGGCTGC  
GGCCTTGGCGCTACTCACCTGGGCTTGCCCTCATGGTACTAGGCTCCGTGCTGATGTGGGACTCTTTGGA  
GAATGAAGCCCATGCGTGGGAGCAGGTGCCTTTCTTCTGTTTGTGCTCTTGTGGTGTATGCACACTG  
CCTCTCAGCAGGAGGGCAGCCATCGTGGCAGGCGTGACCTCCACGGTCTCCCATCTCTGGTGTGGAG  
CTGTGACAAGAGCCTTCCAGACGTCCATGTCTAGCACTCAACTGGGGCTGCAGCTCCTGGCCAATGCCGT  
TATCTCTGGGTGGGAACCTCACGGGTGCCTTCCACAAGCACCAGCTGCAGGACCGCTCCAGGGATCTC  
TTATCTACACCGTCAAATGCATCCAGATCCGTGGAAGCTTCGTGTGGAGAAGCGCCAGCAGGAGAACC  
GGTGGTGACCGACACTACATGCCCCACAACAACCTTCCAGCCTCTATGTCAAGCGGCACCAGAATGTC  
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CCTGGGTGACTGTTACTACTGCGTGTACGGCCTGCCCGTGTGCTGCCCCACACATGCCCGCAACTGTGTG  
AAGATGGGTCTGGACATCTGCGAGGCCATTAAGCAGGTGCGTGAGGCCACGGGCGTGGACATCAGCATGC  
GTGTGGGCATTCACTCCGGGAATGTGCTATGTGGGTGTCGCGCTCCGTAAGTGGCAGTATGATGTGTG  
GTCCCATGATGTGCTCCCTGGCCAACAGGATGGAGGCAGCTGGAGTCCCTGGCCGGGTGCACATCACAGAG  
GCAACATTGAATCACCTGGACAAGGCATATGAGGTGGAGGATGGGCATGGGGAGCAGCGAGACCCCTATC  
TGAAAGAGATGAACATCCGAACCTACCTGGTGTGATCCCCGGAGCCAGCAGCCACCCCAAGGCCA  
CCACTCTCAAGCCCAAGGGGACGCAACTCTGAAGATGCGGGCTTCAGTGCCTGTAACCCGCTATCTG



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GAGTCTTGGGGGCGAGCAAGGCCCTTTGCACACCTCAACCACCGGAGAGTGTGAGCAGCAGTGAGACCC  
 CCATCTCCAATGGACGGAGGCAGAAAGGCCATTCTCTGCGTCGACACCGTGCCCTGATAGGAGTGCATC  
 TCCCAAGGGGCGCTTGAAGATGACTGTGATGACGAGATGCTGTGACGCCATTGAGGGTCTCAGCTCCACC  
 AGGCCCTGCTGCTCAAGTCTGATGACTTCCACACCTTTGGTCCCATTCTTGGAGAAGGGCTTTGAGC  
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 CCTTCCGCCTCCGAGTCGGCATAAACCACGGGCTGTGATTGCTGGAGTATTGGAGCAGCAAGCCTCA  
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 ACGTCAAAGGCAAAGGGAACTGCGGACTTACTTTGTATGACAGACTGCCAAGTTTCAAGGGCTGGG  
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AGCGGACCGACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC  
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**Protein Sequence:**

>MR231579 protein sequence

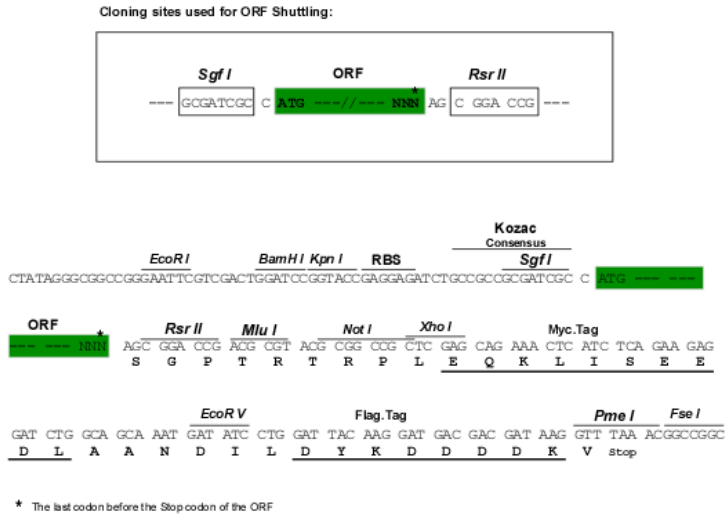
Red=Cloning site Green=Tags(s)

MPAKGRYFLNEGDEGPDQALYEKYRLTSLHGPLLLLLLVAATCIALISIAFSHEDLRRHQVVLGTAFL  
 LMLTLFVALYVLYVECLVQRWLRALALLTWACLMVLGSVLMWDSLNEAHAWEQVFFLFVVFVYALL  
 PLSRRAAIVAGVTSTVSHLLVFGAVTRAFQTSMSSTQLGLQLLANAVILLGGNFTGAFHKHQLDASRDL  
 FIYTVKCIQIRKLRVEKRQENLLL SVLPAHISMGMKLAIIERLKEGGDRHYMPDNNFHSLYVYKRQNV  
 SILYADIVGFTRLASDCSPKELVVVLNELFGKFDQIAKANECMRKILGDCYCYVSGPLVSLPTHARNCV  
 KMGLDICEAIKQVREATGVDISMRVGIHSGNVLCGVIIGLRKWQYDVWSDVSLANRMEAAAGVPGRVHITE  
 ATLNHLDKAYEVEDGHGEQRDPYLKEMNIRTYLVIDPRSQQPPPPSHHLSKPKGDATLKMRAVSVRTRYL  
 ESWGAAARPF AHLNHRESVSSSETPISNGRRQKAIPLRRHRAPDRSASPKGRLEDDCDEMLSAIEGLSST  
 RPCCSKSDDFHTFGPIFLEKGFERYRLVPIPRARYDFACASLVFVCILLVHLLVMPRMATLGVSFGLVA  
 CLLGLVL SFCFATEFSRCFSPRSTLQAISESVETQPLVRLVVLTVGSLLTVAIINMPLTLNPGPEQPG  
 DNKTSPLAAQNRVGTPECELLPYTCSILGFIACSVFLRMSLELKAMLLTVALVAYLLFNLSPCWHVSG  
 NSTETNGTQRTRLLLSDAQSMPSHTLAPGARETAPSPSYLERDLKIMVNFYILFYATLILLSRQIDYYC  
 RLDCLWKKKFKKEHEEFETMENVNRLLENVLP AHVAHF IGDKAAEDWYHQSYDCVCMFASVPDFKVF  
 YTECDVNKEGLECLRLLNEIIADFDELLLKPKFSGVEKIKTIGSTYMAAAGLSAPSGHENQDLERKHVHI  
 GVLVEFSMALMSKLDGINRHSFNSFRLRVGINHPVPIAGVIGARKPQYDIWGNVTNVASRMESTGELGKI  
 QVTEETCTILQGLGYSCECRGLINVKKGELRTYFVCTDTAKFQGLGLN

SGPTRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-RsrII

Cloning Scheme:



ACCN: NM\_001037723

ORF Size: 3297 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\\_001037723.3](#), [NP\\_001032812.2](#)

RefSeq Size: 6033 bp

RefSeq ORF: 3300 bp

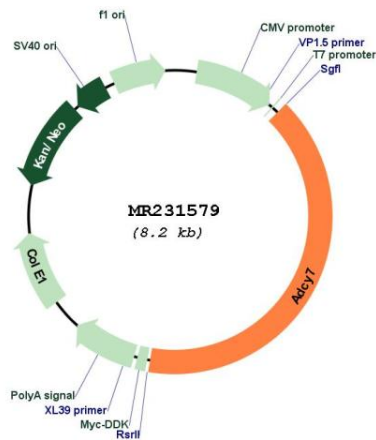
Locus ID: 11513

UniProt ID: [P51829](#)

**Cytogenetics:** 8 43.06 cM  
**MW:** 122.7 kDa

**Gene Summary:** Catalyzes the formation of cAMP in response to activation of G protein-coupled receptors (Probable). Functions in signaling cascades activated namely by thrombin and sphingosine 1-phosphate and mediates regulation of cAMP synthesis through synergistic action of the stimulatory G alpha protein with GNA13 (PubMed:18541530). Also, during inflammation, mediates zymosan-induced increase intracellular cAMP, leading to protein kinase A pathway activation in order to modulate innate immune responses through heterotrimeric G proteins G(12/13) (PubMed:23178822). Functions in signaling cascades activated namely by dopamine and C5 alpha chain and mediates regulation of cAMP synthesis through synergistic action of the stimulatory G protein with G beta:gamma complex (By similarity). Functions, through cAMP response regulation, to keep inflammation under control during bacterial infection by sensing the presence of serum factors, such as the bioactive lysophospholipid (LPA) that regulate LPS-induced TNF-alpha production. However, it is also required for the optimal functions of B and T cells during adaptive immune responses by regulating cAMP synthesis in both B and T cells (PubMed:20505140).[UniProtKB/Swiss-Prot Function]

**Product images:**



Circular map for MR231579