

## Product datasheet for **MC223539**

### Adcy7 (NM\_001109756) Mouse Untagged Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Adcy7 (NM\_001109756) Mouse Untagged Clone  
**Tag:** Tag Free  
**Symbol:** Adcy7  
**Synonyms:** AA407758  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**Fully Sequenced ORF:** >MC223539 representing NM\_001109756  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGC**C

ATGCCAGCCAAGGGCGCTACTTCTAAATGAGGGTGATGAAGGCCCGACCAGGCAGCGCTCTATGAGA  
 AGTACCGGCTCACCAGCTTGACGGGCCACTGCTGCTTGTCTCTCTGGTGGCCGCGCCACCTGCAT  
 TGGCCTCATCAGCATCGCCTTCACTGATGAGGATCTCCGACAGACACCAGTTGCTCTGGGACTGCGTTC  
 CTATGCTGACGCTGTTTGTGGCTCTCTATGTGCTGGTGTATGTCGAGTGCCTGGTGCAGCGGTGGCTGC  
 GGGCCTTGGCGCTACTCACCTGGGCTTGCCCTATGGTACTAGGCTCCGTGCTGATGTGGGACTCTTTGGA  
 GAATGAAGCCCATGCGTGGGAGCAGGTGCCTTTCTTCTGTTTGTGCTTTGTGGTGTATGCACTACTG  
 CCTCTCAGCAGGAGGGCAGCCATCGTGGCAGGCGTGACCTCCACGGTCTCCCATCTCTGGTGTGGAG  
 CTGTGACAAGAGCCTTCCAGACGTCCATGTCTAGCACTCAACTGGGGCTGCAGCTCCTGGCCAATGCCGT  
 TATCCTCCTGGGTGGGAACCTCACGGGTGCCTCCACAAGCACCAGCTGCAGGACCGCTCCAGGGATCTC  
 TTTATCTACACCGTCAAATGCATCCAGATCCGTCGGAAGCTTCGTGTGGAGAAGCGCCAGCAGGAGAACC  
 TGCTTCTGTAGTCTCCAGCACACATCTCCATGGGTATGAAGCTGGCCATCATTGAGCGCCTCAAAGA  
 GGGTGGTGACCGACACTACATGCCGACAACAACCTTTCACAGCCTCTATGTCAAGCGGCACCAGAATGTC  
 AGCATCTTGTATGCAGACATCGTGGGCTTACAGAGGCTGGCCAGCGACTGCTCTCCAAGGAGCTGGTGG  
 TGGTGCTCAACGAGCTGTTTGGGAAGTTTGACCAGATTGCTAAGGCCAATGAGTGCATGCGGATCAAGAT  
 CCTGGGTGACTGTTACTACTGCTGTCAGGCTGCCCGTGTGCTGCCACACATGCCCGCAACTGTGTG  
 AAGATGGGTCTGGACATCTGCGAGGCCATTAAGCAGGTGCGTGAAGGCCACGGGCTGGACATCAGCATGC  
 GTGTGGGCATTCACTCCGGGAATGTGCTATGTGGGTCATCGGGCTCCGTAAGTGGCAGTATGATGTGTG  
 GTCCCATGATGTGTCCTGGCCAACAGGATGGAGGCAGCTGGAGTCCCTGGCCGGGTGCACATCACAGAG  
 GCAACATTGAATCACCTGGACAAGGCATATGAGGTGGAGATGGGCATGGGGAGCAGCGAGACCCCTATC  
 TGAAAGAGATGAACATCCGAACCTACCTGGTATCGATCCCCGGAGCCAGCAGCCACCCACCCAGCCA  
 CCACCTCTCAAGCCCAAGGGGACGCAACTCTGAAGATGCGGGCTTCAGTGCCTGTAACCCGCTATCTG  
 GAGTCTTGGGGGCGAGCAAGGCCCTTGCACACCTCAACCACCGGGAGAGTGTGAGCAGCAGTGAGACCC



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CCATCTCCAATGGACGGAGGCAGAAGGCCATTCTCTGCGTCGACACCCGTGCCCTGATAGGAGTGCATC
TCCAAGGGGCGCTTGGAAAGTACTGTGATGACGAGATGCTGTGACGCCATTGAGGGTCTCAGCTCCACC
AGGCCCTGCTGCTCCAAGTCTGATGACTTCCACACCTTTGGTCCCATTCTTGGAGAAGGGCTTTGAGC
GTGAGTACCGCCTGGTGGCCATCCCCGGGCTCGCTACGACTTCGCTGTGCCAGCCTTGCTTTCGTCTG
CATCTGCTTGTCCACCTTCTAGTGATGCCAGGATGGCAACTCTGGGTGTGCTTTGGGTTGGTGGCC
TGCCTGCTGGGCTGGTTCTGAGTTTCTGCTTGTACTGAGTCTCGAGGTGCTTTCCATCCCAGAGTA
CACTCCAGGCCATCTCGAGAGCGTGGAGACGCAGCCCTGGTCAGGCTTGCTCTGGTTGCTGACTGT
TGGCAGCCTACTGACTGTGCCATCATTAAACATGCCACTGACGCTTAACCCAGGCCAGAGCAGCCTGGA
GACAACAAGACAAGCCCACTGGCTGCACAGAACAGAGTTGGGACCCCATGTGAGCTCCTCCCGTACTACA
CCTGCAGCTGCATCCTGGGCTTCAATGTCATGCTCTGTTTTCTGCGGATGAGCCTAGAGCTGAAGGCCAT
GCTGCTGACAGTGGCCTTGGTGGCTACCTGCTGCTCTTCAACCTCTCCCATGCTGGCAGCTCAGGC
AACAGCACTGAGACCAACGGGACACAAAGGACACGGCTGCTCTGTCTGATGCACAAAGCATGCCAGCC
ACACCTTGTCCGGGGCTCGGGAGACTGCCCTTCTCCAGTTATTTAGAGAGAGACCTGAAGATCAT
GGTTAACTTCTACCTGATCCTGTTCTATGCCACCCTCATTTGCTGTCTAGACAGATTGACTACTACTGC
CGTTGGACTGTCTGTGAAGAAGAAGTTCAAAAAGGAGCAGGAGTTTGAACAATGGAGAATGTGA
ACCGCCTCCTCCTGGAGAATGTGCTGCCGGCGCACGTGGCTGCCCACTTCATTGGGGACAAGGCAGCAGA
GGATTGGTACCATCAATCTTATGACTGTGTCTGTGTCATGTTTGCATCCGTTCCGGACTTCAAAGTGTT
TACACTGAGTGTGATGTCAACAAAGAAGGACTGGAGTGCCTTCGACTGCTGAATGAGATAATTGCTGATT
TTGACGAGCTCCTGCTGAAGCCCAAGTTTAGTGGTGTGGAGAAGATCAAGACCATTGGCAGCACCTACAT
GGCGGCAGCAGGGCTCAGTGCCCTCAGGACATGAGAACCAGGACCTGGAGCGGAAGCAGTGCACATC
GGAGTCTTGGTAGAATTTAGCATGGCCCTGATGAGCAAGCTGGATGGGATCAACAGGCACTCCTTCAACT
CCTTCCGCCTCCGAGTCGGCATAAACCACGGCCCTGTGATTGCTGGAGTATTGGAGCACGAAGCCTCA
GTATGACATCTGGGAAACACAGTCAATGTTGCCAGCCGATGGAGAGCACCGGAGACTTGGGAAAATC
CAGGTTACCGAAGAGACATGCACTATCCTCCAGGACTCGGATATTCGTGTGAATGCCGTGGGCTGATCA
ACGTCAAAGGCAAAGGGAACTGCGGACTTACTTTGTATGTACAGACTGCCAAGTTTCAAGGGCTGGG
GCTAAACTGA

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AGCGGACCGACGCTACGCGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC  
TGGATTACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** SgfI-RsrII
- ACCN:** NM\_001109756
- Insert Size:** 3300 bp
- OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
- 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\\_001109756.1](#), [NP\\_001103226.1](#)

RefSeq Size: 5937 bp

RefSeq ORF: 3300 bp

Locus ID: 11513

UniProt ID: [P51829](#)

Cytogenetics: 8 43.06 cM

**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]

Transcript Variant: This variant (4) differs in the 5' UTR compared to variant 1. Variants 1, 2, 3 and 4 encode the same protein.