

## Product datasheet for **MC223787**

### Adcy6 (NM\_007405) Mouse Untagged Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Adcy6 (NM\_007405) Mouse Untagged Clone  
**Tag:** Tag Free  
**Symbol:** Adcy6  
**Synonyms:** AC6; mKIAA0422  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**Fully Sequenced ORF:** >MC223787 representing NM\_007405  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGTCATGGTTTAGTGGCTCCTGGTCCCAAAGTGGATGAACGGAAAACAGCTTGGGGGAACGCAATG  
 GGCAGAAGCGCCACGCCACGCAATCGAGCCAGTGGCTTCTGCGCACCTCGCTACATGAGCTGCCTCAA  
 GAATGCGGAGCCACCCAGCCCACTCCTGCAGCTCACACTCGGTGCCCTGGCAGGATGAAGCCTTCATC  
 AGGAGGGCGGGCCCGGGCAGGGGTGTGGAGCTGGGGCTGCGGTACAGTGGCCTTGGGGTTGACGACTG  
 AGGTGACCACACCGATGGGCACAGCTGAAGTGGCACCGGATACATCGCCTCGGAGCGGTCCGCTCCTGCTG  
 GCACCGGCTTGTGCAGGTGTTCCAGTCTAAGCAGTTCCGCTCTGCCAAGCTGGAGCGGCTGTACCAGCGG  
 TACTTCTCCAGATGAACCAGAGCAGCCTCACGCTGCTCATGGCGGTGCTGGTGTGCTCATGGCTGTAC  
 TGTTGACTTCCACGCTGCGCCTGCCAGCCTCAGCCTGCTTACGTGGCCCTGCTGACCTGTGCCTCTGT  
 CCTTTTGTGGTACTCATGGTGGTGTGTAACCGACACAGCTTCCGCCAGGACTCCATGTGGGTGGTGAGC  
 TATGTGGTCTGGGCATCCTAGCAGCCGTGCAAGTGGGGGTGCCCTGGCAGCCAATCCACACAGCCCT  
 CGGCGGGCCTTTGGTCCCGTGTCTTCTGCTACATCACACTCTTCTTCCATTCCGATGCGGAGC  
 CGCAGTACTCAGCGCCCTGGCCCTCTACTCTGCATTTGATTTTGGCCTGGCAGCTCAACAGCAGCGAC  
 CCTTCTTTGGAAGCAGCTCGGTGCTAACGTGGTGTCTTCTCTGCACCAATGCCATCCGTGTCTGCA  
 CACACTACCCTGCTGAAGTGTCTCAGCGCAAGCCTTTCAGGAGACCCGAGGTTACATCCAGGCGCGGCT  
 GCACCTGCAGCATGAGAACCGTCAGCAGGAACGGCTGCTGCTATCGGTGTTGCCCCAGCAGCTTGCCATG  
 GAGATGAAAGAAGACATCAACACAAAAAAGAGGACATGATGTTCCATAAGATCTACATCCAGAAGCATG  
 ATAATGTCAGCATCCTGTTTGGGACATTGAGGGCTTACCAGCCTGGCCTCCAGTGCAGTGCACAGGA  
 ACTGGTCATGACCTTGAATGAGCTCTTGGCCGGTTTGACAAGCTGGCTGCGGTGAGGGAGAATCACTGT  
 CTGAGGATCAAGATCTTAGGAGACTGTTACTACTGCGTGTGAGGGCTGCCGAGGCCCGGGCAGATCACG  
 CCCACTGCTGTGTGGAGATGGGGGTAGACATGATCGAAGCCATCTCGCTGGTGCCTGAGGTAACAGGTGT  
 GAACGTGAACATGCGTGTGGGCATCCACAGCGGACGTGTGCATTGCGGCGTCTTGGCCTACGGAATGG  
 CAGTTTGTGCTGGTCAAACGATGTGACCCTGGCTAACACATGGAGGCCGGGGCCGGCCGGCCGCA



TCCACATCACTCGGGCTACACTGCAGTACTTGAACGGGGACTATGAGGTGGAGCCAGGCCGTGGTGGTGA  
 ACGCAATGCGTACCTCAAGGAGCAGTGCATTGAGACCTTCCTCATACTTGGCGCCAGCAAAAAACGGAAA  
 GAGGAGAAAGCCATGCTGGCCAAGTTCAGCGGACACGGGCAACTCCATGGAAGGACTGATGCCCGCT  
 GGGTTCCTGACCGTGCCCTTCCCGGACCAAGGACTCTAAGGCATTCCGCCAGATGGGCATTGATGATTC  
 TAGCAAAGACAACCGGGGTGCCAAGATGCTCTGAACCTGAAGATGAGGTGGATGAGTTCCTGGGCCGA  
 GCCATCGATGCCGAAGCATCGACCAACTGCGTAAGGACCATGTGCGCCGGTTCCTGCTCACCTTCCAGA  
 GAGAGGATCTTGAGAAGAAGTATTCACGGAAGTAGATCCTCGTTCGGAGCCTACGTGCTGCTGCCCT  
 CCTGGTTTTTGGCTTCATCTGTTTTATCCAGCTCCTTGTGTTCCATACTCCACCCTGATACTCGGGATT  
 TATGCCGCTATCTTCTGCTGTTGCTGGTCACTGTGCTGATCTGTGCCGTGTGCTCCTGCCGTTCTTTCT  
 TCCCAAGGCCCTGCAACGCCTGTCCCGCAATATTGTCCGCTCACGGGTGCACAGCACCGCGTTGGAAT  
 CTTCTCGTTCGTTGTTTCTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT  
 ACCTGCGCGGCCCGGATGCTGAACTTAACACCAGCGGATGTACCAGCCTGCCACCTACAACAGCTCAATT  
 ACTCTCTGGGACTGGATGCTCCCTGTGTGAGGGCACCGCACCCCTGCAGTTCCTGAGTACTTCGT  
 CGGGAACGTGCTGCTGAGTCTTCTAGCCAGCTCTGTCTTCTACACATCAGCAGCATCGGAAGCTGGCC  
 ATGACCTTCATCTTGGGGTTCACCTACTTGGTGTGCTTTTGTGGTCCCGCGCCCATCTTTGACA  
 ACTATGATCTACTGCTTGGCGTCCATGGCTTGGCTTCTCCAATGAGACCTTTGATGGGCTGGACTGCC  
 AGCTGTGGGGAGGGTAGCGCTCAAATATATGACCCCCGTGATTCTGCTGGTGTGGCCCTGGCACTGTAT  
 CTGCATGCACAACAGGTGGAATCGACTGCCCGCTGGACTTCTGTGGAAGTTACAGGCAACAGGGGAGA  
 AGGAGGAGATGGAGGAGCTACAGGCATACAACCGAGGTTGTGCATAACATTCTTCCAAGGACGTGGC  
 CGCCCACTTCTGGCCCGGGAACGCCGCAACGATGAGCTGTACTACCAGTGTGTGAATGTGTGGCTGTC  
 ATGTTTGCCTCCATCGCAATTTCTCGGAGTCTACGTGGAGCTCGAGGCAACAACGAGGGCGTGGAGT  
 GCCTGCGGCTGCTCAATGAGATCATCGCAGACTTTGACGAGATCATCAGTGAGGAGAGATCCGGCAGTT  
 GGAGAAGATCAAGACCATCGGTAGCACCTACATGGCCGCTCTGGGCTAAATGCCAGCACATGACCAG  
 GTCGGCCGCTCACACATCACGGCGTGGCTGACTATGCCATGCGGCTCATGGAGCAGATGAAACACATCA  
 ATGAACACTCTTTCAACAATTTCCAGATGAAGATCGGGTTGAACATGGGTCCGGTTGTAGCAGGCGTCAT  
 TGGGGCCCGAAAGCCACAGTATGACATCTGGGAAATACCGTGAATGTTTCCAGTCGATGGACAGCACT  
 GGAGTTCTGACCGAATACAGGTGACTACGGACCTATACCAGTTCTAGCTGCCAAGGGCTACCAGCTGG  
 AGTGTGAGGGGTGGTCAAGGTGAAGGGAAAGGGGAGATGACCACCTACTTCTCAACGGGGGCCCGAG  
 CAGTAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** SgfI-MluI
- ACCN:** NM\_007405
- Insert Size:** 3507 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\\_007405.2](#), [NP\\_031431.2](#)

**RefSeq Size:** 6038 bp

**RefSeq ORF:** 3507 bp

**Locus ID:** 11512

**UniProt ID:** [Q01341](#)

**Cytogenetics:** 15 F1

**Gene Summary:** Catalyzes the formation of the signaling molecule cAMP downstream of G protein-coupled receptors (PubMed:18071070, PubMed:24363043). Functions in signaling cascades downstream of beta-adrenergic receptors in the heart and in vascular smooth muscle cells (PubMed:18071070). Functions in signaling cascades downstream of the vasopressin receptor in the kidney and has a role in renal water reabsorption (PubMed:20466003, PubMed:20864687). Functions in signaling cascades downstream of PTH1R and plays a role in regulating renal phosphate excretion (PubMed:24854272). Functions in signaling cascades downstream of the VIP and SCT receptors in pancreas and contributes to the regulation of pancreatic amylase and fluid secretion (PubMed:23753526). Signaling mediates cAMP-dependent activation of protein kinase PKA and promotes increased phosphorylation of various proteins, including AKT (PubMed:18071070, PubMed:23753526). Plays a role in regulating cardiac sarcoplasmic reticulum Ca(2+) uptake and storage, and is required for normal heart ventricular contractibility (PubMed:18071070). May contribute to normal heart function (PubMed:18071070, PubMed:20359598). Mediates vasodilatation after activation of beta-adrenergic receptors by isoproterenol (By similarity). Contributes to bone cell responses to mechanical stimuli (PubMed:20371630, PubMed:24277577).[UniProtKB/Swiss-Prot Function]