

## Product datasheet for **SC102665**

### ADCY5 (AK098381) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	ADCY5 (AK098381) Human Untagged Clone
Tag:	Tag Free
Symbol:	ADCY5
Synonyms:	AC5; FDFM
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >NCBI ORF sequence for AK098381, the custom clone sequence may differ by one or more nucleotides

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GTGTTTCTGAGAAAAATATTTATTAATAAAACAAAACAAGTTCTCCGTGCCCTTCTTTAGACTATGCTA
GTTGTATGCGTGTAAAGAGACACACAAGCAAACGAGGACGCCACTCGGGGGGAGGGCGGGGATCCCCACTT
GTCTTTTTGTATTTTTATTTTGTATTATTGAAAGCCTTGAGATCTCACAGATAGATATGCCAAATTC
TATATTTTGTAAATTCTCTATATTAGAAAAACAGCTGTGCACAGCAGGGCGGGTGTGCTCATTGTACTGT
GTGTATGTCGGTGTATGTACTGGTGTATATGTGTGTGTTCATGCTGTGGAAGTGGTCTCACACAGGAT
GTGTTTCCCTCATTTAGATTGGCAGTTTTGGGTTTTCCAAGGTACCACCAGAGCAGTGGGTGTGTGCT
TTTGGGTACCATATGCTCAGATTAAGTAGGAGGATGCATGGACACACTGCCCATCTTTTCTGACACAC
GCACACGTATGTACACACATGCACACACCCTCCTCCCTAAGCAAAACGCAGATGGAATAAGAAAAACAA
AAAGCTGCTTTCCCATCCCAGGCCGAGCTGGAACCAAGGAAGCAATCTCATCTCGCAGGCAGTGTG
GTGCCCTCCACACCCTGAGATTTAGACGTTTGGCGCTTACAGAGGCAGCGCCACAGATTCCAGAGTGC
TTACAGAAGGCCAGGTGCTTTGACGGCTGGGACGAGGAAGCAAGCCTCCCTGGCCTACTCAGTTGGCCA
AGGTGCAGGTGGCTCTTCTGGAGATGTTCACTCAGACTGGGGGATGCAATGTGCAGCCTCAGGTTTGC
GGAAAGGGAGTGGCCTTGACCTCCACCGCAAACAGGCAGAGGAATGGGTAGAGCCCAGCTTTAGAGTC
CACAGGAAAAGCTAGCAGGAATTTGTTTTAGTGGGAGGGGCGAGTTAAACATACCAAGAAAAAAATACT
ATTTTTATAACCTATGAGGAAGACATTTGGAAAATGATACTCTAGCACAGAATTCAGTGGAAATCCTTAGG
GCCCATGCCCAAATCTTTCCATTGCTTCTCAGGTTAGAATGATCTTCACCTCCAACATGAGCTTGGAGGT
GATGAGGCAGTGGCTCTGTGCCAGCTGCCACAAATGTGACTTTGATGTCCACCTGTACCACCTCTCACTGG
GCTCTAGCACACCCTCCCCTCCCGCACACCAACTGAACACAGCTCTGAGAAGCAAAGTGTGTGGACCC
AAAATGCCAAGCCTGAGTCTGTCCCCTTCTGCTGCTCCATCCTTTGAGTTTCTGCTATGCCATCCTG
AGTTCGGCCACAGGAGGCTGCTTTCTCCAGCTGTTGTTCTCAAGTTCCTGCCCTCCACATCGCCCG
CCAGTGGTGTGGTTTTCGTTCTGCTTCCAACCTGAGTAAAGTGTGTGTGCTGAGTTCATCCCATGTTT
TCCCATGGTCATGGCTTCCCGGCCCATGGGGACCCCTCTCCCATCCCAGCAGTACTGGTGACAGTGTG
CAGGTGCAGTGTAGCTCTTCGTTCCCTCTAAAGGGTGTGCACTCTTTTTATTCTACTCTTGCAAAAAC
AGATACGATTATGATTTCCCATGGAAATGAAAAGTCTATTTAAATAATTTAACTATTAACACTTTCAC
TGGT
    
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**5' Read Nucleotide Sequence:**

>OriGene 5' read for AK098381 unedited

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NGGTTTCAGATTAGTATACGACTCATATAGGCGGCCGCAAATTCGCACGAGGCACAGACA
GTGCCCTAGGAGGGAAACAGAATAATTACGAGGGGGAGGCAAGAGGACGCCAAGCAAGG
AGTGGTGATTCTGAGAAAAATATTTATTAATAAAACAAAACAAGTTCTCCGTGCCCTTC
TTTAGACTATGCTAGTTGTATGCGTGTAAAGAGACACACAAGCAAACGAGGACGCCACTCG
GGGGAGGGCGGGGATCCCACCTGTCTTTTTTTGTATTTTTTTATTTTGTATTATTGAAAAG
CCTTGGAGATCTCACAGATAGATATGCCAAATCTATATTTTGTAAATTCTCTATATTAG
AAAACAGCTGTGCACAGCAGGGCGGGTGTGCTCATTGTACTGTGTGTATGTCGGTGTAT
GTAAGTGTGTATATGTGTGTGTGTTTCACTGTGGAAGTGGTCTCACACAGGATGTGTTT
CCCTCATTTAGATTGGCAGTTTTGGGTTTTCCAAGGTACCACCAGAGCAGTGGGTGTG
TGCTTTTGGGTACCATATGCTCAGATTAAGTAGGAGGATGCATGGACACACTGCCCAT
CTTTTCTGACACACGCACACGTATGTACACACATGCACACACCCTCCTTTCCCTAAGCAA
AACGCAGATGGAATAAGAAAACAAAAGCTGCTTTCCATCCCAGGCCGAGCTGGAACC
AAGGGAAGCAATCTCATCTGCGACAGGCAGTGTGGTGCCTCCACACCCTGAGATTTCA
GACGTTTTCGGCTTACAGAGGCAGCGCCACAGATTCCAGAGTGTACAGAAAGCCANG
TGCTTTGACAGGCTGGGACGAAGAAGCAAGCTNCCTGCCTACTCATTGGCCAGGTGCANG
TGCTCTTCTGAGATGTCACTCGACTGTGGATGCATGTGCACN
    
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<b>3' Read Nucleotide Sequence:</b>	<p>&gt;OriGene 3' read for AK098381 unedited            GTACAGCTATGNNACCGCGGCCGCAATCTAGNGATCGGTTTTTTTTTTTTTTTTTTTTTTTT            TTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTACCCGGGAAAGGGTTAATAGTTAAATTAT            TTAATAAGACTTTTCAATTTCCATGGGAAAACATAATCGTATCTGTTTTTGCAAGAGTAG            GAATAAAAAGAGTGCSCCCCTTTAAAGGGAACAAAAGCTAGCCCTGGCCCTGCACACT            GTCACCAATCACTGGTGGATGGGAAAGGGTCCCCATGGGCGGGGAAGCCCTGACCC            GGGAAAACATGGGATGAACTCAGCACACCCCTTTACTCAGTTGGAAGCAAAACGAAAA            CCCACCCCTGGCGGGCGATGTGGAGGGCAGGGAACCTGAAAACAACAGCTGGAAAA            AAGCAGGCCCTCTGTGGCCAACGTCAGGGTGGCAATGCCAAACTCAAAGGATGGAGCAGC            AAAAGCACGGGACAACTCAGGCTTGGCAGTTTTGGGTCCACACTTTGCTTCTCAAAA            CTGTGTTCAATTTGTGTCCGGGAGGGGAGGGTGGTGCTAAAACCAATGAGAGGTGGTA            CAGGTGGACATCAAAGTCACATTGTGGCAGCTGGCACAGAGCCACTGGCTCATCACCTCC            AAGCTCATGTTGGAGGTGAAGATCATTCTAACCTGAGAAGCAATGAAAAGATTTGGGCAT            GGGCCCTAAGGGATCCACTGAATTTCTGTGCTAGAGTATCATTTTCCAAATGTCCTTCCTC            AAGGGTATAAAAAAGGAATTTTTCTTGGGATGGTTAACTGCCCTCCACTAAACCA            AATTCTGTAGCTTTCCCGGGACTCTAAAGCTGGGCTCTACCCATCTCTGCCGGGT            TGCCGGNTGAAGTAAGGCCCTCCCTTTTCGCAAT</p>
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	AK098381
<b>Insert Size:</b>	2000 bp
<b>OTI Disclaimer:</b>	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).
<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><a href="#">AK098381.1</a></u>
<b>RefSeq Size:</b>	1684 bp
<b>RefSeq ORF:</b>	1684 bp
<b>Locus ID:</b>	111
<b>Cytogenetics:</b>	3q21.1
<b>Protein Families:</b>	Druggable Genome, Transmembrane

**Protein Pathways:** Chemokine signaling pathway, Dilated cardiomyopathy, Gap junction, GnRH signaling pathway, Melanogenesis, Oocyte meiosis, Progesterone-mediated oocyte maturation, Purine metabolism, Vascular smooth muscle contraction

**Gene Summary:** This gene encodes a member of the membrane-bound adenylyl cyclase enzymes. Adenylyl cyclases mediate G protein-coupled receptor signaling through the synthesis of the second messenger cAMP. Activity of the encoded protein is stimulated by the Gs alpha subunit of G protein-coupled receptors and is inhibited by protein kinase A, calcium and Gi alpha subunits. Single nucleotide polymorphisms in this gene may be associated with low birth weight and type 2 diabetes. Alternatively spliced transcript variants that encode different isoforms have been observed for this gene. [provided by RefSeq, Dec 2010]