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Product datasheet for SC307566

ADCY5 (NM_183357) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ADCY5 (NM_183357) Human Untagged Clone
Tag:	Tag Free
Symbol:	ADCY5
Synonyms:	AC5; FDFM
Mammalian Cell Selection:	None
Vector:	pCMV6-XL4
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF:

>OriGene sequence for NM_183357 edited
ATGTCCGGCTCCAAAAGCGTGAGCCCCCCGGGCTACGCGGCGCAGAAGACTGCGGCGCCG
GCGCCCCGGGGAGGCCCCGAACACCGCTCTGCGTGGGGCGAGGCCGATTCCCGCGCGAAT
GGCTACCCCCATGCCCCCGGGGGTTCTGCCCGCGGCTCCACCAAGAAACCCGGGGGGGCG
GTGACCCCGCAGCAGCAGCAGCGCCTGGCCAGCCGCTGGCGCAGCGACGACGACGACGAT
CCTCCGCTGAGCGGTGACGACCCCCTGGCCGGGGGCTTCGGCTTCAGCTTCCGCTCCAAG
TCCGCCTGGCAGGAGCGCGGCGGCGACGACTGCGGTCGCGGCAGCCGCCGGCAGCGGCGG
GGCGCGGCCAGCGGGGGCAGCACCCGGGCGCCCCCTGCGGGCGGCGGCGGCGGCTCGGCG
GCGGCGGCTGCCTCGGCGGGCGGGACGGAGGTGCGCCCTCGCTCGGTGGAGGTGGGTCTG
GAGGAGCGGCGGGGCAAGGGGCGCGCGGCCGACGAGCTGGAGGCCGGCGCCGTCGAGGGC
GGCGAGGGGTCCGGGGATGGCGGCAGCTCGGCGGACTCGGGCTCGGGCGCGGGGCCCGGC
GCGGTGCTGTCCCTGGGCGCCTGCTGCCTGGCGTTGCTGCAGATATTCCGCTCCAAGAAG
TTCCCGTCGGACAAACTGGAGCGGCTGTACCAGCGCTACTTCTTCCGCCTGAACCAGAGC
AGCCTCACCATGCTCATGGCCGTGCTGGTGCTCGTGTGCCTGGTCATGTTGGCCTTCCAC
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GCCTGCTATGCGCTCATCGCCGTGGTGCTGGCCGTCCAGGTGGTGGGCCTGCTGCTGCCG
CAGCCACGCAGCGCCTCTGAGGGCATCTGGTGGACCGTGTTCTTCATCTACACCATCTAC
ACGCTGCTGCCCGTGCGCATGCGGGCCGCAGTGCTCAGCGGGGTGCTCCTGTCCGCCCTC
CACCTGGCCATCGCCCTGCGCACCAACGCCCAGGACCAGTTCCTGCTGAAGCAGCTTGTC
TCCAATGTTCTCATTTTCTCCTGCACCAACATCGTGGGTGTCTGCACCCACTATCCGGCT
GAGGTCTCCCAGAGACAGGCTTTCCAGGAGACCCGAGAGTGCATCCAGGCGCGGCTCCAC
TCGCAGCGGGAGAACCAGCAGCAGGAACGGCTCCTGCTGTCTGTCCTTCCCCGTCATGTT
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CTGGCGTCCCAGTGCACTGCACAGGAACTGGTCATGACCCTCAACGAGCTCTTCGCCCGC
TTTGACAAGCTGGCCGCAGAGAATCACTGTTTACGTATTAAGATCCTTGGGGATTGTTAT

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TACTGCGTCTCGGGGCTGCCTGAAGCAAGGGCTGACCACGCCCACTGCTGTGTGGAGATG
GGCATGGACATGATCGAGGCCATCTCGTTGGTCCGGGAGGTGACAGGGGTGAACGTGAAC
ATGCGTGTGGGAATTCACAGCGGGCGAGTACACTGCGGTGTCCTTGGTCTCAGGAAGTGG
CAGTTCGACGTCTGGTCTAACGATGTCACGCTAGCCAACCACATGGAGGCTGGCGGCAAG
GCAGGACGCATCCACATCACCAAGGCTACACTCAACTACCTGAATGGGGACTACGAGGTG
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CTCATCCTGCGCTGCACCCAGAAGCGGAAAGAAGAGAAGGCCATGATCGCCAAGATGAAC
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TTTGGTGCCTATGTGGCGTGTGCCTCGCTCGTCTTCCTCTTCATCTGCTTTGTCCAGATC
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GTGGCGGAGTCGGCCGTCAACTACAGCCTGGGCGATGAGCAGGGCTTCTGTGGCAGCCCC
TGGCCCAACTGCAACTTCCCCGAGTACTTCACCTACAGCGTGCTGCTCAGCCTGCTGGCC
TGCTCCGTGTTCCTGCAGATCAGCTGCATCGGGAAGCTGGTGCTCATGCTGGCCATCGAG
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CACAACATCCTGCCCAAGGACGTGGCCGCTCACTTCCTGGCCCGCGAGCGGCGCAATGAT
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ATCGGCCCCGTGGTGGCCGGGGTGATAGGGGCACGAAAGCCTCAGTACGACATCTGGGGC
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GTAGAAGACTCTGCTAGACTGGGTCTGAAGCTTGAGTTTTCTAACAGGTGCTGCTGCACA
GGTGGAAAGGAGCCGTGGGAATGTGTGTGTGGCACGGCCCAGACAAGGGCAGGGCTGAGG
GGCCTCCGACTCAGCTGGGGGTAGACGGGCTCGAATGTGGCCTGGGAGAGCCTAGGGGGC
CCCAGGGGTCTGCTTTTCTATGTGAGCCTTTAAACTTCAGACAGGCCACCACCCTGCACC
TGCAGGGGCTTTGGCACAGGAGTGCTGGCTTTGGAGGGACTGTGGCCTTCATCGTGGTCC
TCTGCCCACACCTCCACGCACACAGACAGTGCCTAGGAGGGAAACAGAACTAATTACGAG
GGGGAGGCAAGAGGACGCCAAGCAAGGAGTGGTGATTCTGAGAAAAATATTTATTAAATA
AAACAAAACAAAAAAA

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_183357 unedited
GAAGGCGGTANNGATTGTGTAAACCACTTTACTATAGGCGGCCGCAAACTCGCCCTTTGT
CCGGCTCCAAAACGTGAGCCCCCCGGGCTACGCGGCGCAGAAGACTGCGGCGCCGGCGCC
CCGGGGAGGCCCCGAACACCGCTCTGCGTGGGGCGAGGCCGATTCCCGCGCGAATGGCTA
CCCCCATGCCCCCGGGGGTTCTGCCCGCGGCTCCACCAAGAAACCCGGGGGGGCGGTGAC
CCCGCAGCAGCAGCAGCGCCTGGCCAGCCGCTGGCGCAGCGACGACGACGACGATCCTCC
GCTGAGCGGTGACGACCCCCTGGCCGGGGGCTTCGGCTTCAGCTTCCGCTCCAAGTCCGC
CTGGCAGGAGCGCGGCGGCGACGACTGCGGTCGCGGCAGCCGCCGGCAGCGGCGGGGCGC
GGCCAGCGGGGGCAGCACCCGGGCGCCCCCTGCGGGCGGCGGCGGCGGCTCGGCGGCGGC
GGCTGCCTCGGCGGGCGGGACGGAGGTGCGCCCTCGCTCGGTGGAGGTGGGTCTGGAGGA
GCGGCGGGGCAAGGGGCGCGCGGCCGACGAGCTGGAGGCCGGCGCCGTCGAGGGCGGCGA
GGGGTCCGGGGATGGCGGCAGCTCGGCGGACTCGGGCTCGGGCGCGGGGCCCGGCGCGGT
GCTGTCCCTGGGCGCCTGCTGCCTGGCGTTGCTGCAGATATTCCGCTCCAAGAAGTTCCC
GTCGGACAAACTGGAGCGGCTGTACCAGCGCTACTTCTTCCGCCTGAACCAGAGCAGCCT
CACCATGCTCATGGCCGTGCTGGTGCTCGTGTGCCTGGTCATGTTGGCCTTTCACGCGGC
GCGGCCCCCCGCTCCAGCTGCCCTACCTGCCCGTG

3' Read Nucleotide Sequence:

>Forward primer walk for NM_183357 unedited
GAACCTGCTGCGCCTACTACCGGCGGCTGCTGCACAACATCCTGCACCAAGGACGTGGCT
CGCTCACTTCCTGGCCCGCGAGCGGCGCATTGATGAGCTCTACTATCAGTCCTGTGAGTG
TGTGACGGTCATGTTCGCCTCCATCGCCAACTTCTCCGAGTTCTACATTGAGCTGGAGGC
CAACAACGAGGGTGTCGAGTGCCTGCGGCTACTCAATGACATCATCGCTGACTTTGATGA
GATCATCAACCACGATCGGTTCCCGCACCTGGAGAAGATCAAGACCATCGGCAGCACCTA
CATGGCTGCCTCCGGCCTCAACGACTCTACCTACGACAAGGTGGGCAAGACCCACATCAA
GGCACTGGCCGACTTTGCCATGAAGCTGATGGACCACATGAAGTACATGCAATGAGCACT
CCTTCAACAACTTCCAGATGAAGATCGGGCTCAACATCGGCCCCGTGGTGGCCTGCGTGA
TAGGGGCACGAAAGCCTCAGTACGACCTCTGGGGCAATACCGTGAACGTGGCCAGCCGCA
TGGACAGCACCGGTGTACCCGACCGCATCCAGGTCACCACAGACATGTACCACGTGCTGG
CTGCCAACACGTACCAGCTGTAGTGCCGGGGCGTGGTCAAGGTCAAGGTCAAACGCGACA
TGATGACCTAGCTCCTCACTGGACGGCCCCCCGCTCAGTTAGCAGCTGTTGGCCAATGGT
GCCAAGCAGCCTGGCCTCCAGAGGCATGGAAACCACTTCTCTGTGTGCCCGGGGTTGCCG
GGGAACCCATGCTCCAACCCGCAGGGCTGCCCCGCTGAGATTTTCCACTTGGCTCCCAAA
CA

Restriction Sites: Please inquire

ACCN: NM_183357

Insert Size: 4500 bp

OTI Disclaimer:	Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery. 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:	The open reading frame of this TrueClone was fully sequenced and found to be a perfect match to the protein associated to this reference.
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_183357.1, NP_899200.1
RefSeq Size:	3842 bp
RefSeq ORF:	3786 bp
Locus ID:	111
UniProt ID:	O95622
Cytogenetics:	3q21.1
Protein Families:	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]
Transcript Variant: This variant (1) represents the longer transcript and encodes the longer isoform (1). Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.