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Product datasheet for SC304912

Adenylate cyclase 1 (ADCY1) (NM_021116) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Adenylate cyclase 1 (ADCY1) (NM_021116) Human Untagged Clone
Tag:	Tag Free
Symbol:	Adenylate cyclase 1
Synonyms:	AC1; DFNB44
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

Fully Sequenced ORF:

>SC304912 representing NM_021116.
Blue=Insert sequence Red=Cloning site Green=Tag(s)

GCTCGTTTAGTGAACCGTCAGAATTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGGCGGGGGCGCCGCGCGGCGGAGGCGGCGGCGGAGGCGGCGCGGGCGAGCCCGGGGGCGCCGAGCGG
GCGGCCGGGACAAGCCGCCGGCGCGGGCTCCGGGCGTGCGACGAGGAGTTCGCTTGCCCAGAGCTGGAG
GCGCTGTTCCGCGGCTACACGCTGCGGCTGGAGCAGGCGGCCACGCTGAAGGCGCTGGCCGTTCTCAGC
CTGCTGGCGGGCGCGCTGGCGCTGGCCGAGCTGCTGGGCGCGCCGGGGCCCGCGCCCGGCCTGGCCAAG
GGCTCACACCCGGTGCACTGCGTCCTCTTCCTGGCGCTGCTCGTGGTAACCAACGTCCGGTCCCTGCAG
GTGCCCCAGCTGCAGCAGGTCGGCCAGCTGGCGCTGCTCTTCAGCCTCACCTTCGCGCTGCTCTGCTGT
CCTTTCGCGCTGGGCGGCCCCGCCCGGGGTTCCGCCGGGGCCGCTGGGGGGCCAGCGACCGCCGAACAA
GGGGTTTGGCAGCTCCTTTTGGTCACCTTCGTGTCCTATGCCTTGCTGCCCGTGCGCAGCCTGCTGGCC
ATAGGCTTTGGGCTCGTGGTGGCTGCGTCGCACTTGCTGGTCACAGCCACCTTGGTCCCCGCCAAGCGC
CCACGTCTCTGGAGGACGCTCGGTGCCAATGCCTTGCTCTTCGTCGGTGTGAACATGTATGGGGTCTTT
GTGCGGATTCTGACTGAGCGTTCACAGAGGAAGGCGTTCCTGCAGGCCCGGAGCTGCATTGAGGACCGA
CTGAGGCTGGAGGATGAGAACGAGAAGCAGGAGCGGCTCCTCATGAGCCTCCTGCCCCGGAACGTTGCC
ATGGAGATGAAGGAGGACTTCCTGAAGCCCCCTGAGAGGATTTTCCACAAGATTTACATCCAGAGGCAC
GACAATGTGAGCATCCTGTTTGCTGACATCGTGGGTTTCACGGGCTTGGCATCCCAGTGCACAGCCCAG
GAGCTGGTGAAACTCCTCAATGAGCTCTTCGGCAAGTTCGATGAATTAGCCACGGAGAACCACTGTCGC
CGCATCAAGATTCTCGGGGACTGCTACTACTGCGTGTCGGGCCTCACCCAGCCCAAGACTGACCATGCC
CACTGCTGTGTGGAGATGGGACTCGACATGATTGATACCATCACATCTGTGGCTGAAGCCACCGAGGTG
GATCTGAACATGCGTGTGGGTCTGCACACGGGCAGGGTCCTCTGTGGTGTCCTGGGCTTGCGCAAGTGG
CAGTACGACGTGTGGTCCAATGATGTGACCTTGGCCAATGTCATGGAAGCCGCTGGCCTGCCAGGGAAG
GTTCATATCACAAAGACGACCCTAGCGTGCTTGAATGGGGACTACGAGGTAGAACCGGGTTACGGACAT
GAGAGGAACAGTTTCTTGAAAACTCATAACATCGAAACCTTTTTTATTGTGCCATCCCATCGCCGAAAG
ATATTTCCAGGCCTGATTCTCTCAGATATAAAACCGGCCAAAAGGATGAAGTTCAAGACTGTCTGCTAC

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CTGCTGGTGCAGCTCATGCACTGCCGGAAAATGTTCAAGGCCGAGATCCCCTTCTCCAATGTCATGACC
TGCGAGGACGATGACAAGCGGAGGGCATTAAGAACAGCCTCGGAAAAACTCAGAAACCGCTCATCTTTT
TCTACCAACGTTGTCTACACCACCCCGGGCACTCGCGTCAACAGGTACATCAGCCGCCTCTTAGAAGCC
CGCCAGACAGAGCTGGAGATGGCAGACCTGAACTTCTTTACCCTGAAGTACAAACATGTCGAACGGGAG
CAAAAGTACCACCAGCTTCAGGACGAGTATTTCACCAGCGCCGTTGTCCTCACCCTCATCCTGGCTGCC
TTATTTGGCCTTGTCTACCTTCTAATATTCCCACAGAGTGTGGTCGTCCTGCTCCTGCTAGTATTCTGC
ATCTGCTTCCTGGTGGCCTGTGTCCTGTACCTGCACATCACCCGGGTCCAGTGTTTTCCAGGGTGCCTG
ACGATTCAGATTCGCACTGTCCTGTGTATTTTCATAGTGGTCTTAATCTACTCAGTAGCCCAAGGTTGT
GTGGTGGGCTGCCTGCCTTGGGCCTGGAGCTCCAAGCCCAACAGTTCCCTGGTGGTCCTTTCGTCTGGG
GGCCAGCGCACAGCCCTGCCCACCCTGCCCTGCGAGTCTACACACCATGCCCTGCTCTGCTGCCTGGTG
GGCACCCTCCCGCTAGCCATATTTTTCCGGGTGTCCTCCTTGCCAAAAATGATCCTGCTCTCCGGGCTC
ACCACGTCCTACATCCTCGTTCTGGAGCTCAGCGGATACACCAGGACTGGGGGTGGTGCCGTCTCCGGG
CGCAGCTACGAGCCGATTGTGGCCATCCTGCTCTTCTCCTGTGCGCTGGCCCTGCATGCCAGGCAGGTG
GACATCAGGCTGAGGCTGGACTACCTCTGGGCCGCACAGGCAGAGGAGGAGCGAGAGGACATGGAGAAG
GTGAAGCTGGACAACAGGCGCATCCTCTTCAACCTCCTGCCGGCCCACGTCGCCCAGCACTTCCTCATG
TCCAACCCTCGGAACATGGACCTCTACTACCAGTCCTACTCCCAGGTGGGCGTCATGTTTGCCTCCATC
CCCAACTTCAATGACTTCTACATCGAGCTGGACGGCAACAACATGGGGGTGGAGTGTCTGCGGCTTCTC
AACGAGATCATCGCCGACTTTGACGAGCTCATGGAAAAAGACTTTTACAAGGACATAGAGAAGATCAAG
ACCATCGGGAGCACCTACATGGCCGCTGTGGGGCTAGCGCCCACCTCGGGGACCAAGGCTAAGAAGTCC
ATCTCCTCCCACCTGAGCACGCTGGCGGACTTTGCCATTGAGATGTTTGACGTTCTGGATGAAATCAAC
TACCAGTCTTACAACGACTTTGTCCTCCGAGTTGGCATCAATGTTGGCCCTGTGGTGGCTGGAGTGATT
GGCGCTCGCAGGCCCCAGTACGACATCTGGGGAAACACAGTCAACGTGGCCAGTCGGATGGATAGCACA
GGGGTCCAGGGCAGAATCCAGGTGACTGAGGAAGTCCACCGGCTGCTGAGAAGGTGCCCCTACCACTTT
GTGTGCCGAGGCAAAGTCAGTGTCAAGGGCAAAGGCGAGATGTTGACATACTTTCTAGAAGGCAGGACT
GATGGAAACGGCTCCCAAATCAGGTCCCTGGGCTTGGATCGGAAAATGTGTCCATTTGGGAGAGCTGGC
CTTCAGGGCAGACGTCCCCCCGTGTGCCCCATGCCTGGCGTCTCAGTCAGGGCTGGGCTCCCTCCACAC
TCCCCAGGCCAGTACCTGCCCTCTGCAGCAGCTGGGAAGGAGGCTTAG
ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC

Restriction Sites: SgfI-MluI

ACCN: NM_021116

Insert Size: 3360 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:	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
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_021116.2
RefSeq Size:	12499 bp
RefSeq ORF:	3360 bp
Locus ID:	107
UniProt ID:	Q08828
Cytogenetics:	7p12.3
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	Calcium signaling pathway, Chemokine signaling pathway, Dilated cardiomyopathy, Gap junction, GnRH signaling pathway, Long-term potentiation, Melanogenesis, Oocyte meiosis, Progesterone-mediated oocyte maturation, Purine metabolism, Vascular smooth muscle contraction
MW:	123.4 kDa
Gene Summary:	This gene encodes a member of the of adenylate cyclase gene family that is primarily expressed in the brain. This protein is regulated by calcium/calmodulin concentration and may be involved in brain development. Alternate splicing results in multiple transcript variants. [provided by RefSeq, Aug 2013] 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.