

Product datasheet for **RC230718**

ADCY10 (NM_001167749) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ADCY10 (NM_001167749) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ADCY10
Synonyms:	HCA2; HEL-S-7a; hsAC; SAC; SACI; Sacy
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RC230718 representing NM_001167749 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**GCGATCGCC**

ATGTTGGTCTTTGGAGATGAAACACACAGCCACTTTCTGGTGATTGGTCAGGCAGTGACGATGTGCGCC
TTGCCAGAACATGGCTCAGATGAATGATGTTATTCTGTCACCAAACCTGCTGGCAGCTCTGTGACCGGAG
CATGATTGAAATTGAGAGTGTTCCAGATCAGAGAGCAGTTAAGGTTAACTTCTTAAAACCCCCCAAT
TTAATTTTGGATGAATTTTACAAAGTGTACGACCTTCATGCATTATTATCCTTCTGGTGGAGCAGAAAA
ACCTCCTGAGGCTTGCATGCACGCTGAAGCCTGATCCTGAACTGGAGATGTCCCTACAAAAGTATGTGAT
GGAAAGCATTTTGAAGCAGATTGATAACAAACAGCTTCAGGGCTATTTATCTGAGCTTCGCCAGTGACG
ATTGTGTTTGTGAACCTGATGTTTGAAGACCAAGCAAAGCAGAAGAGATAGGCCAGCCATCCAGGATG
CCTATATGCACATCACTTCTGCTCCTGAAGATCTCCAAGGCCAAATCAATAAAGTCTTATGTTTGACAA
GGGCTGCTCTTCTCTGTGCTTTGGCTTCCCTGGGAAAAGGTACCTGACGAGCTCACTCATGCTCTG
GAATGTGCTATGGATATATTTGACTTCTGCTCTCAAGTCCACAAAATCCAACTGTATCCATCGGTGTTG
CCAGTGGGATTGTCTTCTGTGGGATCGTTGGACACACTGTGAGACACGAGTACACAGTCATTGGTCAAAA
AGTCAACTTAGCTGCCAGGATGATGATGTACTACCCAGGAATTGTGACCTGCGACTCTGTACCTACAAT
GGGAGCAACCTACCAGCGTACTTTTTTAAAGAGCTTCCAAGAAAAGTTATGAAAGGTGTTGCAGATTCTG
GACCATTGTATCAGTATTGGGGCCTACTGAGAAAGTCATGTTTGGTATGGCGTGCCCTCATCTGCAACAG
AAAGGAGGATTACCCTTTGCTGGGACGTAATAAAGAGATCAACTACTTATGTATACTATGAAGAAATTT
TTGATATCTAACAGCAGCAAGTCTAATGTATGAGGGATTACCAGGATATGGAAAAAGCCAGATACTTA
TGAAAAATTGAGTACCTGGCCCAAGGTAAGAATCACAGGATTATTGCCATTCATTGAATAAGATCAGCTT
CCATCAAACCTTTCTATACCATCCAGATGTTTCATGGCCAATGCTCCTAGGCCTAGACACTTGTAAACATTAT
AAGAACGACAGACCAACCTTCGAAATAAAGTCATGACACTGTTGGATGAAAAGTTCTACTGTCTTCTTA
ATGACATTTTCCATGTTTCAGTTCCCTATTTCTCGGGAGATTTCCAGGATGAGCACCTTGA AAAAGCAAAA
ACAATTGGAAATATTGTTTATGAAGATCTTGAAGCTGATAGTGAAGAGGAAAGGATTATTTTTATCATT
GATGAGGCCAGTTTGTGGATTGACCTCCTGGAGATTTATGGAGAAGCTTATCCGGACTCTTCTATCT



[View online >](#)

TCATCATTATGTCCCTGTGCCCTTCGTTAACATTCCCTGTGCAGCTGCCAGGGCCGTAATAAAGAACAG
GAACACCACCTACATTGTTCATTGGTGCAGTACAGCCTAACGCATCTCCAACAAGATCTGTCTTGACCTC
AATGTGAGCTGCATCTCCAAGAAGCTGGACTCGTACCTGGGGGAGGGAAGCTGTGGGATTCCATTTACT
GTGAAGAATTGCTTAAAAACCTGGAACATCATGAGGTAAGTTCGTTTTCCAACAACGGAGTCTGAGGAAAA
GACAAATAGGACCTGGAATAACCTGTCAAGTATTCCATTAAGCTAACAGAGAAGTTAAACATGGTTACT
CTCCATAGTGATAAGGAAAGTGAAGAAGTCTGTACCTCACAAGTGGTGTGAGACTGAAAAACCTGTGAC
CTCCAACGTCAATAAAGAAATCTCTGATCCAGCTGGATAGCATGAGACTTTCCACCAAAATGCTGGT
GAGATGTGCTGCCATCATTGGCCTGACCTTACCACCTGAGTTGTTGTTGAGATTCTCCCCTGTTGGAAAT
ATGAAGATGATGATCAAGACCCTGGCAACCCTAGTGAATCTAACATTTTTTATTGTTTCCGGAATGGCA
AGGAGCTTCAAAAGGCCCTGAAACAGAATGATCCCTCATTTGAGGTGCACTATCGTTCCTGTCTGTGAA
GCCAGTGAAGGGATGGATCACGGTGAAGAGGAACAGCTTCGTGAACTGGAGAATGAGGTGATCGAGTGC
CACAGGATTCGATTCTGTAAACCCTATGATGCAGAAAACAGCTACGAGCTGTGGCTCAAGGACCAGAGAA
AAGCCATGCATTGAAATGTGCCGCTTTTTAGAAGAAGATGCCACAGATGTGACCACTGCCGAGGCAG
GGACTTCATTCCCTATCATCACTTACAGTGAATATTCGGCTCAACGCTTAGACATGGATGCCATTA
AAGATGGCTATGTCTCATGGATTTAAACTGAAGAAAAGCTTATCTTGTCCAACCTCAGAGATTCCTGAGA
CATCTGCATTTTTCTGAAAATCGCAGTCTGAAGAAAATAAGAGAAAAGATCTTGAATTTCTTTGACCA
CGTTTTAACAAAAATGAAGACATCTGACGAAGACATTATCCCTCTGGAATCTTGCCAGTGTGAAGAAATC
CTAGAGATTGTCATCTTGCCCTCTGGCCACCATTTCTGGCTTTGGGAGAAAATGACAAAGCCTTATATT
ACTTCTTAGAAAATGCATCTGCTTATCTCATCTTTGTGATAACTACATGGCATACATGTATTTGAATGA
AGGACAGAAGTTGCTAAAACTCTCAAGAAGGACAAAATCTGGAGCCAGACATTTGAGTCTGCCACCTTT
TACAGCCTCAAAGGTGAGGTCTGTTTCAATATGGGCCAGATAGTCTTCCAAGAAAATGCTGAGGAAGG
CACTGAAGCTCCTCAACCGAATCTTCTTACAACCTTAATCTCCTTGTCTCCATATCCATGTGCGAGAA
AAACAGACACTTTCATTAATGTGAATCGCAGGCCCAAGAGAGCCACCTCCAGGGAAGAAGAGCTGGCA
CAACTTTACCGGCAAACTGTCTGCCTTTCTTGTCTGTGGCGCATCTATAGCTACAGTTATCTTTTCACT
GCAAGTATTATGCCACCTGGCAGTTATGATGCAATGAATACTGCACTGAAAACCTCAAAATGTTTCCA
GATCATTAAGGCTTACCTAGACTATTCGCTATACCACCACCTGGCTGGCTACAAAGGTGTGTGGTTCAAA
TATGAAGTCATGGCCATGGAGCACATCTTCAACCTCCCCCTGAAAGGCGAGGGCATTGAAATCGTGGCAT
ACGTGGCTGAGACACTGGTCTTCAACAAGCTCATAATGGGACACCTGGATTTGGCCATTGAGTTAGGCTC
CCGAGCCCTTCAAGTGTGGGCACTGCTCCAGAATCCCAACCGACATTATCAGTCCCTCTGCAGACTTAGC
AGATGTCTCCTTCTGAACAGCAGATACCCGCAATTGATCCAGGTGCTGGGGCGGCTGTGGGAGCTTTCTG
TAACACAGGAACACATCTTCAAGCAAGGCAATTTTCTATTTTGTCTGCTTGGACATCTGCTTTATTTCTGG
TTTTGTTTATAGAACATTTGAAGAATGTTTGAATTCATACACCAATACGAAAACAACAGAAATCCTCAAG
TTCCACAGTGGACTCCTCCTGGGACTTTATTCTCTGTAGCTATCTGGTATGCCAGACTTCAGGAATGGG
ACAACCTTTTACAATTTTCCAATAGAGCTAAAAATCTTTTCCAAGAAGAACCATGACACTTACTTACTA
TGACGGAATATCTAGGTACATGGAGGGGCAAGTTCTTACCTTCAAAAACAAATCAAAGAACAGTCAGAG
AATGCCAAGCCAGTGGGGAGGACTACTCAAGAACTGGAGAATCTGGTGGCTCAAAATACCACTGGCC
CTGTCTTTGCCAAGGCTCTACCACCTGATGGCTTACGCTGTATTAATGGGAGATGGGCAGAAATG
TGGCCTCTTCTGAACACAGCCTTGGGCTCTCTGAAACACAGGGGAATATACTGGAGAAATGCTGGCTG
AACATGAACAAAAGAAATCATGGTACTCAACCTCTGAGTTAAAAGAAGACCAATGGCTTCAAGCAGATTTGA
GTCTCCCATCATGGGAAAAAATGTAGCAGGCAGGGTAAACATTCAGGATCTTCAAAAAACAAATTCCT
GATGAGAGCTAATACCGTGGACAATCATTTT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC230718 representing NM_001167749
 Red=Cloning site Green=Tags(s)

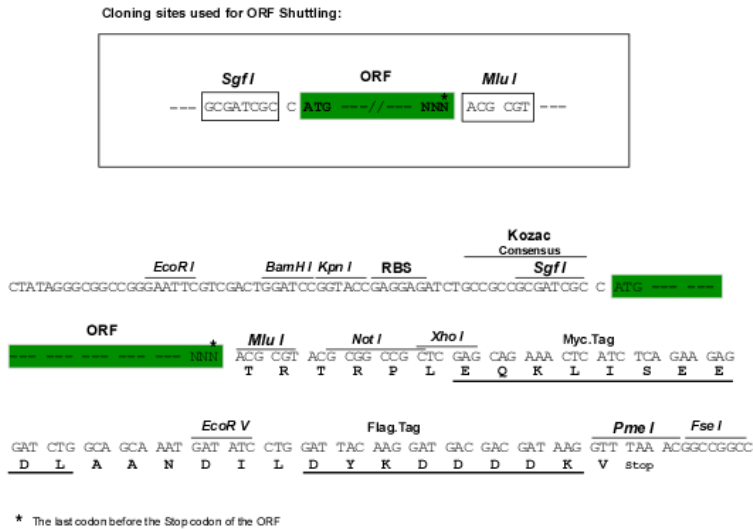
```
MLVFGDETHSHFLVIGQAVDDVRLAQNMAQMNDVILSPNCWQLCDRSMIEIESVDPQRAVKVNFLLKPPPN
FNFDEFKTKCTTFMHYYPSGEHKNLLRLACTLKPDPPELEMSLQKYVMEISLKQIDNKQLQGYLSELRPV
IVFVNLMFEDQDKAEEIGPAIQDAYMHITSVLKIFQGQINKVFMFDKGCSFLCVFPGGEKVPDELTHAL
ECAMDIFDFCSQVHKIQTVSIGVASGIVFCGIVGHTVRHEYTVIGQKVNLAARMMYYPGIVTCDSVTYN
GSQLPAYFFKELPKKVMKGVADSGPLYQYWGRTKVMFGMAELICNRKEDYPLLGRNKEINYFMYTMKKF
LISNSSQVLMYEGLPGYKGSQILMKIEYLAQGNHRIIAISLKNISFHQTFYTIQMFMANVGLDTCCKHY
KERQTNLRNKVMTLLEKDFYCLLNDIFHVQFPISREISMSTLKKQKQLEILFMKILKLIKEERIFII
DEAQFVSTSWRFMEKLIRTLPIFIIMSLCPFVNIPCAAARAVIKNRNTTYIVIGAVQPNDSNKICLDL
NVSCISKELDSYLGEKSGIPFYCEELLKNLEHHEVLVFQOTESEKTRNTWNNLFKYSIKLTEKLNMT
LHSDKESEEVCHLTSVRLKNLSPPTSLKEISLIQLDSMRLSHQMLVRCAAIIGLTFTTELLFEILPCWN
MKMMIKTLATLVESNIFYCFRNGKELQKALKQNDPSFEVHYRSLSKPSEGMDHGEEELRELENEVIEC
HRIRFCNPMQKTAYELWLKDQRKAMHLKCARFLEEDAHRCDHCRGRDIPYHHTVNIIRLNALDMDAIK
KMAMSHGFKTEELKILSNSEIPETSAPFPENRSPREEIREKILNFFDHVLTKMKTSDEDIIPLESCQCEI
LEIVILPLAHFLALGENDKALYYFLEIASAYLIFCDNYMAYMYLNEGQKLLKTLKDKSWSQTFESATF
YSLKGEVCFNMGIQLAKMLRKALKLLNRIFPYNLISLFLHIHVEKNRHFHYVNRQAQESPPPGKRLA
QLYRQTVCLSLWRIYSYSLFHCKYAHAVMMQNTALETONCFQIIKAYLDYSLYHHLAGYKGVWFK
YEVMAHEIFNLPLKGGEGIEIVAYVAETLVFNKIMGHLDAIELGSRALQMWALLQNPNRHYQSLCRLS
RCLLLNSRYPQLIQVLRGLWELSVTQEHIFSKAFFYFVCLDILLYSGFVYRTFEECLEFIHQYENNRILK
FHSGLLLGLYSSVAIWYARLQEWDFYKFSNRKLNLLPRRTMTLYYDGI SRYMEGQVHLHLKQKIKEQSE
NAQASGEELLKLNLENVAQNTTGPVFCPRLYHLMAYVCIILMDGQKCGFLNTALRLSETQGNILEKQWL
NMNKESWYSTSELKEDQWLQTLISLPSWEKIVAGRVNIQDLQKNKFLMRANTVDNHF
```

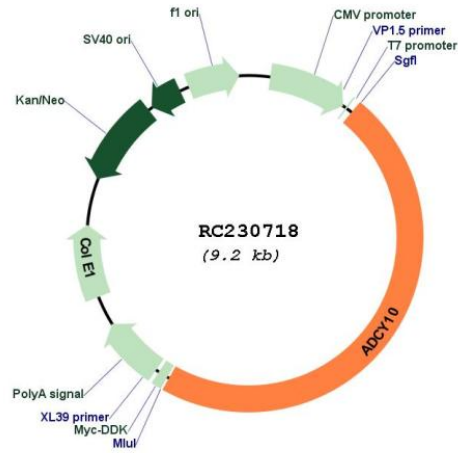
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfi-MluI

Cloning Scheme:



Plasmid Map:


ACCN: NM_001167749

ORF Size: 4371 bp

OTI Disclaimer: 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 clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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_001167749.3](#)

RefSeq Size: 4977 bp

RefSeq ORF: 4374 bp

Locus ID: 55811

UniProt ID: [Q96PN6](#)

Cytogenetics: 1q24.2

Protein Families: Druggable Genome, Transmembrane

Protein Pathways: Purine metabolism

MW: 169.7 kDa

Gene Summary: The protein encoded by this gene belongs to a distinct class of adenylyl cyclases that is soluble and insensitive to G protein or forskolin regulation. Activity of this protein is regulated by bicarbonate. Variation at this gene has been observed in patients with absorptive hypercalciuria. Alternatively spliced transcript variants encoding different isoforms have been observed. There is a pseudogene of this gene on chromosome 6. [provided by RefSeq, Jul 2014]