

Product datasheet for **RC220272**

ADCY3 (NM_004036) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Tag:	Myc-DDK
Symbol:	ADCY3
Synonyms:	AC-III; AC3; BMIQ19
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC220272 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCCGAGGAACCAAGGGCTTCTCCGAGCCCAATACTCGGCCGAGTACTCAGCCGAGTACTCCGTACGCC
TGCCCTCCGACCTGACCGCGGGGTGGGCCGACCCATGAAATCTCGGTCCGGAAGTCCGGCTCTGCCT
GTGCCTGCCTCGCTTCATGCGGCTGACTTTCGTGCCGAGTCTTGAGAACCTCTACCAGACCTACTTC
AAAAGGCAGCGCCACGAGACCTGCTGGTGTGGTGGTCTTGCAGCCCTCTTGACTGCTACGTGGTGG
TCATGTGTGTGGTCTTCTCCAGCGACAAGCTGGCTTCCCTCGCCGTGGTGGAAATGGACTGGTGT
GGACATCATCTCTTCGTGCTCTGCAAAAAGGGGCTGCTCCCGGACCGGGTCACCCGACAGAGTGTGCC
TACGTGTGTGGCTGCTCATAACCGCCAGATCTTCTCTACCTGGGCCTGAACCTTCGCGGTGCCACG
CGGCTAGTGACACGGTGGGCTGGCAGGTCTTCTTGTCTTCTCTTCTCATCACGCTGCCCTCAGCCT
CAGCCCCATCGTGATCATCTCCGTGGTCTCCTGTGTGGTGACACGTTGGTCTGGGGGTACCGTGGCC
CAGCAGCAGCAGGAGGAGCTCAAGGGGATGCAGCTGCTGCGGAGATCCTGGCCAACGTCTTCTCTACC
TGTGCGCCATCGCTGTGGGCATCATGTCTACTACATGGCTGACCGCAAGCAGCAGGAGGCTTCTGGA
GGCCCCCAGTCGCTGGAGGTGAAGATGAACCTGGAAGAGCAGAGCCAGCAGCAGGAGAACCTCATGCTT
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CTTTACCCAGCTGTCTTCTGCCTGCAGTGCCAGGAGCTTGTGAAGCTGCTCAACGAGCTCTTTGCCCGC
TTTGACAAGCTGGCAGCTAAATACCACAGCTGCGGATTAAGATCCTGGGCGACTGCTACTACTGCATCT
GCGGCTTGCCCGACTACCGGGAGGACACGCCGTCTGCTCCATCCTCATGGGGCTGGCCATGGTGGAGGC
CATCTCGTATGTGCGGGAGAAGACCAAGACTGGGGTGACATGCGTGTGGGGGTGCACACGGGCACCGTG
CTGGGGGGCGTCTGGGCCAGAAGCGCTGGCAGTACGACGTGTGGTCTGACTGATGCTACTGTAGCCAACA
AGATGGAGGCCGCGGCATCCCTGGGCGGTGCACATCTCCAGAGCACCATGGACTGCCTGAAAGGGGA
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CCAATGGAGCACCAGCTTCTCAAAGTCCAGCTCCCCTGCCCTATTGAGACCAAGGAGCCCAACGGGAG



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TGCCACAGCAGTGGGTCCACGTCGGAGAAGCCCCGAGGAGCAGGATGCCAGGCCGACAACCCCTCATTC
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 ACGAGCTCAACCAGCTGCTCAACGAGGCCCTGCTTGAGCGAGAGTCCGCCCAAGTAGTAAAGAAGAGAAA
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 CACCAACATCAACAACAGTCTTCAATAACTTCATGCTGCGCATAGGCATGAACAAAGGCGGGGTTCTG
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 TGGAGTCCACGGGGTTCATGGGCAACATTGAGTGGTAGAAGAAACCAAGTCATCTCCGAGAGTACGG
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 GGGCGGGATAAGCTAGCCACCTCCCAATGGCCCTCTGTCACTGCCCCACCAGGTGGTGGACAACT
 CC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
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Protein Sequence:

>RC220272 protein sequence
 Red=Cloning site Green=Tags(s)

MPRNQGFSEPEYSAEYSAEYSVSLPSDPDRGVGRTHEISVRNSGSCLCLPRFMRLTFVPESLENLYQTYF
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 YVLWLLITAQIFSYLGLNFARAHAASDTVGWQVFFVFSFFITLPLSLSPIVVISVSCVVHTLVLGVTVA
 QQQQEELKGMQLLREILANVFLYLCAIIVGIMSYMADRKHKRAFLEARQSLEVKMNL EEQSQQENLML
 SILPKHVADMLKDMKKDESQKQQQFNTMYRHEVNSILFADIVGFTQLSSACSAQELVKLLNELFAR
 FDKLAAKYHQLRIKILGDCYYCICGLPDYREDHAVCSILMGLAMVEAISYVREKTKTGVDMRVGVHTGT
 LGGVLGQKRQYDVWSTDVTVANKMEAGGIPGRVHISQSTMDCLKGEFDVEPGDGGSRCDYLEEKIETY
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 PNPRRLRLQLADRVVDASEDEHELNQLLNEALLERESAQVVKRNTFLLSMRFMDPEMETRYSVEKEK
 QSGAAFSCSCVLLCTALVEILIDPWLMTNYVTFMVGEILLILITICSLAAIFPRAFPKKLVAFSTWIDR
 TRWARNTWAMLAIFILVMANVDMLSCLQYYTGPSNATAGMETEGSCLENPKYYNYVAVLSLIATIMLVQ
 VSHMVKLTMLLVAGAVATINLYAWRPVFDEYDHKRFREHDLPMVALEQM QGFNPLNGTDRLPLVPSKY
 SMTVMVFLMMLSYYYFSRHVEKLARTLFLWKIEVHDQKERVYEMRRWNEALVTNMLPEHVARHFLGSKKR
 DEELYSQTYDEIGVMFASLPNFADFYTEESINNGGIECLRFLNEIISDFDSLDDNPKFRVITKIKTIGST
 YMAASGVPDVTNNGFASSNKEDKSERERWQHLADLADLALAMKDTLTNNQSFNNFMRIGMKNKGGVL
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 GRDKLATFPNGPSVTLPHQVVDNS

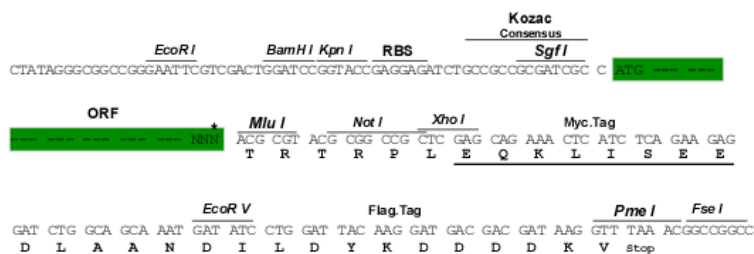
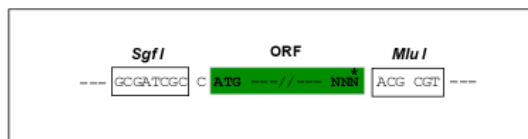
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6604_h03.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_004036

ORF Size: 3432 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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_004036.5
RefSeq Size:	4410 bp
RefSeq ORF:	3435 bp
Locus ID:	109
UniProt ID:	O60266
Cytogenetics:	2p23.3
Domains:	CYCc
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	Calcium signaling pathway, Chemokine signaling pathway, Dilated cardiomyopathy, Gap junction, GnRH signaling pathway, Melanogenesis, Olfactory transduction, Oocyte meiosis, Progesterone-mediated oocyte maturation, Purine metabolism, Vascular smooth muscle contraction, Vibrio cholerae infection
MW:	129 kDa
Gene Summary:	This gene encodes adenylyl cyclase 3 which is a membrane-associated enzyme and catalyzes the formation of the secondary messenger cyclic adenosine monophosphate (cAMP). This protein appears to be widely expressed in various human tissues and may be involved in a number of physiological and pathophysiological metabolic processes. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Feb 2016]

RC220272
(8.3 kb)

SV40 ori, f1 ori, CMV promoter, VP15 primer, T7 promoter, SgfI, AdCY3, Myc-DDK, Myc, XL39 primer, PolyA signal, ColEI

Western blot validation of overexpression lysate (Cat# [LY418293]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC220272 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).