

## Product datasheet for RC222444

### ADCY2 (NM\_020546) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	ADCY2 (NM_020546) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ADCY2
Synonyms:	AC2; HBAC2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC222444 representing NM_020546 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCCCGCATCGCC

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TCGGTCCGCATGACCCGGTACTTGGAGTCTGGGGGCGAGCCAAGCCCTTTGCACACCTACATCACAGGG  
 ACAGCATGACCACAGAGAACGGCAAGATCAGCACCACGGATGTACCCATGGGTGAGCATAATTTTCAAAA  
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ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
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**Protein Sequence:**

>RC222444 representing NM\_020546  
 Red=Cloning site Green=Tags(s)

MWQEAMRRRRLRDRSEEAAGGGDGLPRSRDWLYESYYCMSQQHPLIVFLLLIVMGSLALLAVFFALGL  
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 LYVKRHTNVSILYADIVGFTRLASDCSPGELVHMLNELFGKFDQIAKENEEMRIKILGDCYYCVSGLPIS  
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 LSDSEETIPPTANTTNTSFSASNNQVAILRAQNLFFLPYFIYSCILGLISCSVFLRVNYELKMLIMMVAL  
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 ECLRLLNEIIADFDDLKPKFSGVEKIKTIGSTYMAATGLSAVPSQEHSEPERQYMHIGTMVEFAFAL  
 VGKLDAINKHSFNDKLRVGINHGPIAGVIGAQKPYDIWGNVNVASRMDSTGVLDKIQVTEETSLVL  
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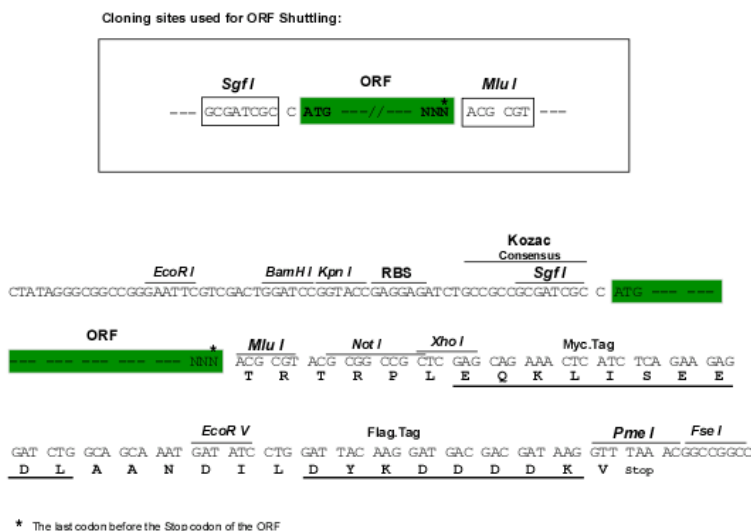
TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mg2930\\_d10.zip](https://cdn.origene.com/chromatograms/mg2930_d10.zip)

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM\_020546

ORF Size: 3273 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\\_020546.2](#), [NP\\_065433.2](#)

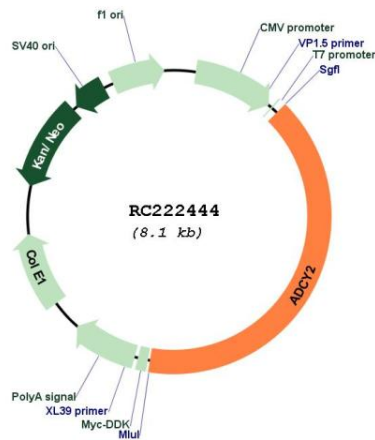
RefSeq Size: 6553 bp

RefSeq ORF: 3276 bp

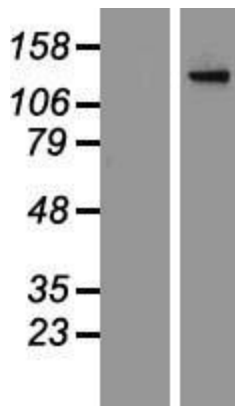
Locus ID: 108

**UniProt ID:** [Q08462](#)  
**Cytogenetics:** 5p15.31  
**Domains:** CYCc  
**Protein Families:** Druggable Genome, Transmembrane  
**Protein Pathways:** Calcium signaling pathway, Chemokine signaling pathway, Dilated cardiomyopathy, Gap junction, GnRH signaling pathway, 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 family of adenylate cyclases, which are membrane-associated enzymes that catalyze the formation of the secondary messenger cyclic adenosine monophosphate (cAMP). This enzyme is insensitive to Ca(2+)/calmodulin, and is stimulated by the G protein beta and gamma subunit complex. [provided by RefSeq, Jul 2008]

### Product images:



Circular map for RC222444



Western blot validation of overexpression lysate (Cat# [LY412417]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC222444 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).