

Product datasheet for **KN215977**

ADCY9 Human Gene Knockout Kit (CRISPR)

Product data:

Product Type:	Knockout Kits (CRISPR)
Format:	2 gRNA vectors, 1 GFP-puro donor, 1 scramble control
Donor DNA:	GFP-puro
Symbol:	ADCY9
Locus ID:	115
Components:	<p>KN215977G1, ADCY9 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002), Target Sequence: GGTGAGCTGCGACTCCAGCG</p> <p>KN215977G2, ADCY9 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002), Target Sequence: GCTGCATCACCACAGCACCG</p> <p>KN215977D, donor DNA containing left and right homologous arms and GFP-puro functional cassette.</p>

Homologous arm and GFP-puro sequences:

pUC vector backbone in gray; **Left arm sequence in blue**; **GFP-puro in green**; **Right arm in violet**

```
GATCGTTGGG AACCGGAGCT GAATGAAGCC ATACCAAACG ACGAGCGTGA CACCACGATG CCTGTAGCAA
TGGCAACAAC GTTGCACAAA CTATTAACCTG GCGAACTACT TACTCTAGCT TCCCAGGCAAC AATTAATAGA
CTGGATGGAG GCGGATAAAG TTGCAGGACC ACTTCTGCGC TCGGCCCTTC CGGCTGGCTG GTTTATTGCT
GATAAATCTG GAGCCGGTGA GCGTGGTTCT CGCGGTATCA TTGCAGCACT GGGGCCAGAT GGTAAGCCCT
CCCGTATCGT AGTTATCTAC ACGACGGGGA GTCAGGCAAC TATGGATGAA CGAAATAGAC AGATCGCTGA
GATAGGTGCC TCACTGATTA AGCATTGGTA ACTGTACAGC CAAGTTTACT CATATATACT TTAGATTGAT
TTAAAACCTC ATTTTAAATT TAAAAGGATC TAGGTGAAGA TCCTTTTTGA TAATCTCATG ACCAAAATCC
CTTAACGTGA GTTTTCGTTC CACTGAGCGT CAGACCCCGT AGAAAAGATC AAAGGATCTT CTTGAGATCC
TTTTTTCTG CGCGTAATCT GCTGCTTGCA AACAAAAAAA CCACCGCTAC CAGCGGTGGT TTGTTTGCCG
GATCAAGAGC TACCAACTCT TTTTCCGAAG GTAAGTGGCT TCAGCAGAGC GCAGATACCA AATACTGTTC
TTCTAGTGTA GCCGTAGTTA GGCCACCACT TCAAGAAGTCT TGTAGCACCG CCTACATACC TCGCTCTGCT
AATCCTGTTA CCAGTGGCTG CTGCCAGTGG CGATAAGTCG TGTCTTACCG GGTGGACTC AAGACGATAG
TTACCGGATA AGGCGCAGCG GTCGGGCTGA ACGGGGGGTT CGTGACACACA GCCCAGCTTG GAGCGAACGA
CCTACACCGA ACTGAGATAC CTACAGCGTG AGCTATGAGA AAGCGCCACG CTCCCGAAG GGAGAAAGGC
GGACAGGTAT CCGGTAAGCG GCAGGGTCCG AACAGGAGAG CGCACGAGGG AGCTTCCAGG GGGAAACGCC
TGGTATCTTT ATAGTCCTGT CGGGTTTCGC CACCTCTGAC TTGAGCGTCG ATTTTTGTGA TGCTCGTCAG
GGGGGCGGAG CCTATGGAAA AACGCCAGCA ACGCGGCCTT TTTACGGTTC CTGGCCTTTT GCTGGCCTTT
TGCTCACATG TTCTTCCCTG CGTTATCCCC TGATTCTGTG GATAACCGTA TTACCGCCTT TGAGTGAGCT
GATACCGCTC GCCGCAGCCG AACGACCGAG CGCAGCGAGT CAGTGAGCGA GGAAGCGGAA GAGCGCCCAA
TACGCAAACC GCCTCTCCCC GCGCGTTGGC CGATTTCATTA ATGCAGCTGG CACGACAGGT TTCCCAGCTG
GAAAGCGGGC AGTGAGCGCA ACGCAATTAA TGTGAGTTAG CTCACTCATT AGGCACCCCA GGCTTTACAC
TTTATGCTTC CGGCTCGTAT GTTGTGTGGA ATTGTGAGCG GATAACAATT TCACACAGGA AACAGCTATG
ACCATGATTA CGCCAAGCTC CTTCTCTTTC CAGCCCTTCC TCTTCTACTG ACTGACTGAC TGGAAGACAC
```



ACCTGGGGGC GGCCGGGGAG CGCGAGCCGG GGGCGCCCGC CGAAGCTCGC TGCTCCGGGT CGGGGTCCGG
 GCCCGGGGCC GGCCGCGCGC GCCTTTGAC GCATCGGAGC GCGGCTCCTG CAGGATGGAG GGCTCCGCGC
 CGCCAGCGGA GTTGTTTGTG CGCAGGCGGC TCGCGGGGCT GGGAGCGCTC AAGGTCTGAA CTTCCCTCCG
 GAGCCGCAGC TGGAGGAGGC GAGCGCGCGA GGAGGAGAAG CCGCGCGGCG CGGAGGCCAC CCTCGGGGCG
 AGAGGCGCGG AAGGCGAGCG AGCAAAGCGG TCCCGGAGCC ACGGCGGCCA CGCGGCGGGG ACCCCCGGGC
 GTTCTAGTTC CGTCCCAGC GGTCTCTGTG CGCCTCGAAG GTGGGGGCGG TGGGGCGGCT GGGAGCACCG
 CTGAGCCGGG AACACAGGA ACAGATGGTG CCTGTCCAGG TCGCGTGCTG GAGCCGCCCT TTAGGACAGG
 AGCAGGTCCC GGGCCTCTAG GCGTGCATGC CTAGGTGGGA GCGCCGCTAA CTCTCCCGT TTTGCTGGCA
 GGTACTGGTG ACCCCGGCCG GGGCAGGCCC CGGGACTCGA CAACACTAGC ATGGAGAGCG ACGAGAGCGG
 CCTGCCCGCC ATGGAGATCG AGTGCCGCAT CACCGGCACC CTGAACGGCG TGGAGTTCGA GCTGGTGGGC
 GCGGAGAGG GCACCCCGA GCAGGGCCGC ATGACCAACA AGATGAAGAG CACCAAAGGC GCCCTGACCT
 TCAGCCCTA CTGCTGAGC CACGTGATGG GCTACGGCTT CTACCACTTC GGCACCTACC CCAGCGGCTA
 CGAGAACCC TTCCTGCACG CCATCAACAA CGGCGGCTAC ACCAACACCC GCATCGAGAA GTACGAGGAC
 GGGCGGCTGC TGCACGTGAG CTTGAGCTAC CGCTACGAGG CCGGCCGCGT GATCGGCGAC TTCAAGGTGA
 TGGGACCCGG CTTCCCGAG GACAGCGTGA TCTTACCGA CAAGATCATC CGCAGCAACG CCACCGTGGG
 GCACCTGCAC CCCATGGGCG ATAACGATCT GGATGGCAGC TTCACCCGCA CCTTCAGCCT GCGCGACGGC
 GGCTACTACA GCTCCGTGGT GGACAGCCAC ATGCACTTCA AGAGCGCCAT CCACCCAGC ATCCTGCAGA
 ACGGGGGCCC CATGTTCCGC TTCGCGCGG TGGAGGAGGA TCACAGCAAC ACCGAGCTGG GCATCGTGGA
 GTACCAGCAC GCCTTCAAGA CCCCGGATGC AGATGCCGTT GAAGAAAGAG TTTAAGAATT CCGATCATAT
 TCAATAACCC TTAATATAAC TTCGTATAAT GTATGCTATA CGAAGTTATT AGGTCTGAAG AGGAGTTTAC
 GTCCAGCAA GCTTAGGATC TCGACCTCGA AATTCTACCG GGTAGGGGAG GCGCTTTTCC CAAGGCAGTC
 TGGAGCATGC GCTTAGCAG CCCCGCTGGG CACTTGGCGC TACACAAGTG GCCTCTGGC TCGCACACAT
 TCCACATCCA CCGTAGGCG CCAACCGACT CGGTTCTTTG GTGGCCCTT CGCGCCACT TCTACTCTC
 CCCTAGTCAG GAAGTTCGCC CCCGCCCGC AGCTCGGTC GTGCAGGACG TGACAAATGG AAGTAGCACG
 TCTCACTAGT CTCGTGCAGA TGGACAGCAC CGCTGAGCAA TGGAAAGCGG TAGGCCTTTG GGGCAGCGG
 CAATAGCAGC TTTGCTCCTT CGCTTTCTGG GCTCAGAGG TGGGAAGGGG TGGTCCGGG GGGGGCTCA
 GGGGCGGGCT CAGGGGCGGG GCGGGCGCCC GAAGTCTC CGGAGGCCCG GCATTCTGCA CGCTTCAAAA
 GCGCAGTCT GCCGCGCTGT TCTCCTTTC CTCATCTCCG GGCCTTTGGA CCTGCATCCA TCTAGATCTC
 GAGCAGTGA AGCTTACCAT GACCGAGTAC AAGCCCACGG TCGCCTCGC CACCCGCGAC GACGTCCCA
 GGGCCGTACG CACCCTCGCC GCCGCTTCC CCGACTACC CGCCACGCGC CACACCGTCG ATCCGGACCG
 CCACATCGAG CGGGTACCG AGCTGCAAGA ACTTCTCTC ACGCGCGTCG GGCTCGACAT CGGCAAGGTG
 TGGTTCGCGG ACGACGGCGC CGCGGTGGCG GTCTGGACCA CGCCGGAGAG CGTCGAAGCG GGGGCGGTGT
 TCGCCGAGAT CGGCCCGCGC ATGGCCGAGT TGAGCGGTTT CCGGCTGGCC GCGCAGCAAC AGATGGAAGG
 CCTCTGGCG CGCACCGGC CCAAGGAGCC CGCGTGTTT CTGGCCACC GCGGCTCTC GCCCGACCAC
 CAGGGCAAGG GTCTGGGCGG CGCCGTCGTG CTCCCGGAG TGGAGGCGGC CGAGCGCGCC GGGGTGCCCG
 CCTTCTGGA GACCTCCGCG CCCACAACC TCCCCTTCTA CGAGCGGCTC GGCTTACC GTCACCCCGA
 CGTCGAGGTG CCCGAAGGAC CGCGCACCTG GTGCATGACC CGCAAGCCCG GTGCCTGACG CCCGCCAC
 GACCCGCAGC GCCCGACCGA AAGGAGCGCA CGACCCATG CATCGATGAT ATCAGATCCC CGGGATGCAG
 AAATTGATGA TCTATTAAC AATAAAGATG TCCACTAAA TGGAAAGTTT TCCTGCATA CTTTGTAAAG
 AAGGGTGAGA ACAGAGTACC TACATTTTGA ATGGAAGGAT TGGAGTACG GGGGTGGGG TGGGTGGGA
 TTAGATAAAT GCCTGCTCTT TACTGAAGGC TCTTACTAT TGCTTTATGA TAATGTTTCA TAGTTGATA
 TCATAATTTA AACAAAGCAA ACCAAATTAA GGGCCAGCTC ATTCCTCCA CTCATGATCT ATAGATCTAT
 AGATCTCTCG TGGATCATT GTTTTTCTCT TGATTCCAC TTTGTGGTTC TAAGTACTGT GGTTCACAAA
 TGTGTCAGTT TCATAGCCTG AAGAACGAGA TCAGCAGCCT CTGTTCCACA TACACTTCAT TCTCAGTATT
 GTTTTGCCAA GTTCTAATTC CATCAGAAGC TGGTCGAGAT CCGGAACCCT TAATATAACT TCGTATAATG
 TATGCTATAC GAAGTTATTA GGTCCCTCGA AGAGTTTAC TAGGCGCGCC **ACAGCAACAG CGTGCAGTC**
AAGATCAACC CCAAGCAGCT GTCCTCAAC AGCCACCCA AGCACTCAA ATACAGCAT TCCTTAGCT
 GCAGCAGCTC TGGGACTCC GGGGCGTCC CCCGCGAGT GGGCGGCGGA GGCCGGCTGC GCAGGCAGAA
 GAAGCTGCC CAGCTGTTCC AGAGGGCCTC CAGCCGCTGG TGGGACCCA AGTTCGACT GGTGAACCTG
 GAGGAGGCT GCCTGGAGCG CTGCTTCCG CAGACCCAGC GCCGTTCCG GTATGCGCTC TTCTACATCG
 GCTTCGCTG CTTTCTGTG AGCATCTATT TTGCGTCCA CATGAGATCC AACTGATCG TCATGGTCG
 CCCCGCGCTG TGCTTCTCC TGGTGTGTG GGGTCTTT CTGTTTACT TCACCAAGCT GTACGCCCGG

CATTACGCGT GGACCTCGCT GGCTCTCACC CTGCTGGTGT TCGCCCTGAC CCTGGCTGCG CAGTTCACGG
 TCTTGACGCC TGTCTCAGGA CGCGGCGACA GCTCCAACCT TACGGCCACA GCCCGGCCCA CAGATACTTG
 CTTATCTCAA GTGGGGAGCT CTACCACTCT TCACTGACTG ACTGACTGGA AAGTCCTCTC CACTGACTGT
 AGCCTCCAAT TCACTGGCCG TCGTTTTACA ACGTCGTGAC TGGGAAAACC CTGGCGTTAC CCAACTTAAT
 CGCCTTGACG CACATCCCC TTTGCCCAGC TGGCGTAATA GCGAAGAGGC CCGCACCGAT CGCCCTTCCC
 AACAGTTGCG CAGCCTGAAT GGCGAATGGC GCCTGATGCG GTATTTTCTC CTTACGCATC TGTGCGGTAT
 TTCACACCGC ATACGTCAA GCAACCATAG TACGCGCCCT GTAGCGGCGC ATTAAGCGCG GCGGGTGTGG
 TGGTTACGCG CAGCGTGACC GCTACACTTG CCAGCGCCCT AGCGCCCGCT CCTTTCGCTT TCTTCCCTTC
 CTTTCTCGCC ACGTTCGCG GCTTTCGCCG TCAAGCTCTA AATCGGGGGC TCCCTTTAGG GTTCCGATTT
 AGTGCTTTAC GGCACCTCGA CCCCAAAAAA CTTGATTTGG GTGATGGTTC ACGTAGTGGG CCATCGCCCT
 GATAGACGGT TTTTCGCCCT TTGACGTTGG AGTCCACGTT CTTAATAGT GGACTCTTGT TCCAACTGG
 AACAACTC AACCTATCT CGGGCTATTC TTTTGATTTA TAAGGGATTT TGCCGATTTT GGCCTATTGG
 TTAATAATG AGCTGATTTA AAAAAATTT AACGCGAATT TTAACAAAAT ATTAACGTTT ACAATTTTAT
 GGTGCACTCT CAGTACAATC TGCTCTGATG CCGCATAGTT AAGCCAGCCC CGACACCCGC CAACACCCGC
 TGACGCGCCC TGACGGGCTT GTCTGCTCCC GGCATCCGCT TACAGACAAG CTGTGACCGT CAACGGGAGC
 TGCATGTGTC AGAGGTTTTT ACCGTCATCA CCGAAACGCG CGACCCGAAA GGGCCTCGTG ATACGCCTAT
 TTTTATAGGT TAATGTCATG ATAATAATGG TTTCTTAGAC GTCAGGTGGC ACTTTTCGGG GAAATGTGCG
 CGGAACCCCT ATTTGTTTAT TTTTCTAAT ACATTCAAAT ATGTATCCGC TCATGAGACA ATAACCCTGA
 TAAATGCTTC AATAATATTG AAAAAGGAAG AGTATGAGTA TTCAACATTT CCGTGTGCGC CTTATTCCTT
 TTTTTCGGC ATTTTGCCTT CCTGTTTTTG CTCACCCAGA AACGCTGGTG AAAGTAAAG ATGCTGAAGA
 TCAGTTGGGT GCACGAGTGG GTTACATCGA ACTGGATCTC AACAGCGGTA AGATCCTTGA GAGTTTTGCG
 CCCGAAGAAC GTTTTCCAAT GATGAGCACT TTTAAAGTTC TGCTATGTGG CGCGGTATTA TCCCATTGG
 ACGCCGGGCA AGAGCAACTC GGTGCGCCGA TACACTATTC TCAGAATGAC TTGTTGAGT ACTCACCAGT
 CACAGAAAAG CATCTTACGG ATGGCATGAC AGTAAGAGAA TTATGCAGTG CTGCCATAAC CATGAGTGAT
 AACACTGCGG CCAACTTACT TCTGACAACG ATCGGAGGAC CGAAGGAGCT AACCGCTTTT TTGCACAACA
 TGGGGGATCA TGTAACCTCG CTT

GE100003, scramble sequence in pCas-Guide vector

Disclaimer:

These products are manufactured and supplied by OriGene under license from ERS. The kit is designed based on the best knowledge of CRISPR technology. The system has been functionally validated for knocking-in the cassette downstream the native promoter. The efficiency of the knock-out varies due to the nature of the biology and the complexity of the experimental process.

RefSeq:

[NM_001116](#)

UniProt ID:

[O60503](#)

Synonyms:

AC9; ACIX

Summary:

Adenylate cyclase is a membrane bound enzyme that catalyses the formation of cyclic AMP from ATP. It is regulated by a family of G protein-coupled receptors, protein kinases, and calcium. The type 9 adenylyl cyclase is a widely distributed adenylyl cyclase, and it is stimulated by beta-adrenergic receptor activation but is insensitive to forskolin, calcium, and somatostatin. [provided by RefSeq, Jul 2008]

Product images:

