

Product datasheet for **MG215716**

Adcy8 (NM_009623) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Adcy8 (NM_009623) Mouse Tagged ORF Clone
Tag: TurboGFP
Symbol: Adcy8
Synonyms: AC8; AW060868
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >MG215716 representing NM_009623
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGAGCTCTCGGATGTGCACTGCCTTAGTGGCAGCGAGGAAGTCTACACCATCCAACCGACGCCCCGG
 CCGGCGACGACGGGAGCGGCTCTCGGCCGACGGCTGCTGTGGCAGACGGCGGTGCGGCACATCACGGA
 GCAGCGCTTCATCCACGGGCACCGAGGCGGCGGGCGGGTCTCCCGCAAAGCCTCGAACCTGCG
 GGCAGTGGACCAATCACCACGCGCCGAGCTGTCTAGCGACTCGGTGCTGCCTCTCTATTCTCTGGCC
 CCGGAGAGCGAGCGCACAAACACCGGTGGCACAAAGTCTTCCGGAACGACGCGGAGCGGCAGTGCCAG
 TGGCAGCGGGGGCGGGGCGACTTGGGCTTCTACACCTTGACTGTGCCCAAGTAACTCGGATTTCTTC
 CTCAATGGAGGATACAGCTACCGAGGGTCAATTTTCCAACCCTACGCAACTCCTTCAAGTCTCGGGATC
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 TGTAATAACAAACTCACCTTTTAGTCTGCACTTGAGCCTGGCCTCGGCTCCAATGGACCTCTCAAG
 GGCATCCTGCTAGGCTTTTTCACTGGCATCGAGGTGGTATCTGCGCCCTCGTGGTGGTCAAGGAGACA
 ACACCTCCCACTTACCTGCAATACAGCGCGTGGTCACTTGGTGGCTATGACCACCCAGATTCTGGC
 AGCAGGCTGGGCTATGGGCTTCTGGGCGACGGCATAGGCTACGTGCTTTTTACTCTTCCGACCTAC
 AGCATGCTTCCCCTGCTCACCTGGCCATCTTGGCCGGCTGGGCACATCTTGTGCAAGTCAACC
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 CTGTGCTCCCCAGGTTTGTGCTCCTGAAATGATCAACGACATGACCAATGTGGAGGATGAGCACCTGCA
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TCGCCATCTACGCCCTGCTCACAGAGACCATCTACGCAGGTCTCTTTCTGAGTTATGACAACCTGAACCA
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CATTGAGAAGATTAAGACCATTGGTAGTACATACATGGCTGTCTCAGGACTGTCCCAGAGAAACAGCAA
TGTGAAGATAAATGGGGACATTTGTGTGCCCTGGCTGACTTCTCTTGTCTGACTGAAAGCATACAAG
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TGTAATTGGAGCTAAGAAACCACAGTATGACATTTGGGGGAAACTGTGAACTTGGAAGCCGAATGGAC
AGCACGGGAGTAAGTGGCCGGATCCAAGTTCTGAGGAGACCTACCTTATCCTGAAGGACCAGGGCTTTG
CCTTTGACTACCGTGGGAGATATATGTGAAGGGCATCAGTGAACAAGAAGGGAAATCAAACATACTT
TCTCCTGGGACGAGTCCAACCAACCCATTATCTTACCCCAAGGAGACTTCCCGGCAATACTCTCTG
GCTGCGGTTGCTTGGCCTTGTCCAGTCTCTCAACAGGCAAAGGCAGAAGCAACTTCTCAACGAGAACA
GCAATTCGGGCATCATCAAGAGCCATTACAACCGCGGACTTTGCTAACGCCAAGTGGGCCAGAGCCTGG
AGCACAAGCTGAAGGCACTGACAATCCGATTTGCCA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG215716 representing NM_009623
Red=Cloning site Green=Tags(s)

MELSDVHCLSGSEELYTIQTPPAGDDGSGSRPQRLWQTAVRHTEQRFIHGHRGGGGGVS RKASNPA
 GSGPNHHAPQLSSDSVLPYSLGPGERAHNTGGTKVFPERSGSGSASGSGGGDLGFLHLD CAPSN SDF
 LGGYSYRGVIFPTLRNSFKSRDLERLYQRYFLGQRRKSEVVMNVDLTKLTLVLHL SLASAPMDPLK
 GILLGFFTGIEVVICALVVRKDNSTHTYLQYSGVVTWVAMTTQILAAGLGYLLGDGIGYVLF TLFATY
 SMLPLPLT WAILAGLGTLLQVTLQVLI PRLAVFSINQVLAQVFLF MCMNTAGIFISYLS DRAQRQAFLE
 TRRCVEARLRLETENQRQERLVLSVLPRFVLEMINDMTNVEDEHLQH QFHRIYIHR YENVSILFADVKG
 FTNLSTLSAQELVRMLNELFARFDRLAHEHHCLRIKILGDCYYCVSGLPEPRRDHAHCCVEMGLSMIKT
 IRFVRSRTKHDVDMRIGIHSGSVLCGVGLRQWQFDVWSWDVDIANKLES GGIPGRIHISKATLDCLNGD
 YNVEEGHKERNEFLRKHNIETYLKQPEESLLCLPEDIKESVSCSDRRNSGATFEGSWPEL PFDNI
 VGKQNTLAALTRNSINLLPNHLAQUALHVQSGPEEINKRIEHTIDLRS GDKLRREHIKPFSLMFKDSSLEH
 KYSQMRDEVFKS NLVCAFIVLLFITAIQSLLPSSRLMPMTIQFSILIMLH SALVLITTAEDYKCLPLILR
 KTCCWINETYLRNVII FASILINFLGAVLNILWCD FDKSIPLKNLTFNSSAVFTDICSYPEYFVFTGVL
 AMVTCAVFLRLNSVLKLA VLLIMIAIYALLTETIYAGLFLSYDNLNHSGEDFLGTKEASLLLMAMFLLAV
 FYHQQLLEYTARLDFLWRVQAKEEINEMKELREHNENMLRNILP SHVARHFLEKDRDNEELYSQSYDAVG
 VMFASIPGFADFYSQTEMNNGVECLRLNNEIIADFD ELLGEDRFQDIEKIKTIGSTYMAVSGLSPEKQQ
 CEDKWHGLCALADFS LALTESIQEINKHSFNNFELRIGISHGSSVAVG VIGAKKPQYDIWGT VNLASRMD
 STGVSGRIQVPEETYLILKDQGFADYRGEIYVKGI SEQEGKIKTYFLLRVQPNPFI LPPRRLPQGYSL
 AAVVLGLVQSLNRQRQKQLLNENSNSGIKSHYNRRTLLTPSGPEPGAQAEGTDKSDLP

TRTRPLE - GFP Tag - V

Chromatograms: https://cdn.origene.com/chromatograms/ja1793_e11.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



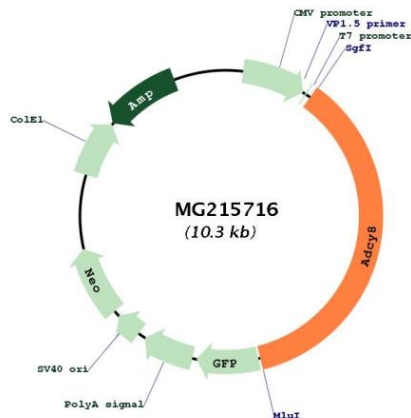
ACCN: NM_009623

ORF Size: 3747 bp

OTI Disclaimer:	<p>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.</p> <p>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</p>
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:	<ol style="list-style-type: none"> 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_009623.2 , NP_033753.2
RefSeq Size:	5064 bp
RefSeq ORF:	3750 bp
Locus ID:	11514
UniProt ID:	P97490
Cytogenetics:	15 29.03 cM

Gene Summary:

Catalyzes the formation of cAMP in response to calcium entry leading to cAMP signaling activation that affect processes such as synaptic plasticity and insulin secretion (PubMed:10864938, PubMed:25403481, PubMed:10482244, PubMed:14585998, PubMed:18448650). Plays a role in many brain functions, such as learning, memory, drug addiction, and anxiety modulation through regulation of synaptic plasticity by modulating long-term memory and long-term potentiation (LTP) through CREB transcription factor activity modulation (PubMed:10482244, PubMed:14585998, PubMed:18448650, PubMed:10864938, PubMed:12441059, PubMed:20638449, PubMed:27234425, PubMed:18222416). Plays a central role in insulin secretion by controlling glucose homeostasis through glucagon-like peptide 1 and glucose signaling pathway and maintains insulin secretion through calcium-dependent PKA activation leading to vesicle pool replenishment (PubMed:25403481). Also, allows PTGER3 to induce potentiation of PTGER4-mediated PLA2 secretion by switching from a negative to a positive regulation, during the IL1B induced-dedifferentiation of smooth muscle cells (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:


Circular map for MG215716