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Product datasheet for MC229483

Adcy8 (NM_001291903) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Adcy8 (NM_001291903) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Adcy8
Synonyms:	AC8; AW060868
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
Fully Sequenced ORF:	>MC229483 representing NM_001291903 Red=Cloning site Blue=ORF Orange=Stop codon TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCCGCGATCGCC ATGGAGCTCTCGGATGTGCACTGCCTTAGTGGCAGCGAGGAACTCTACACCATCCAACCGACGCCCCCGG CCGGCGACGACGGGAGCGGCTCTCGGCCGCAGCGGCTGCTGTGGCAGACGGCGGTGCGGCACATCACGGA GCAGCGCTTCATCCACGGGCACCGAGGCGGCGGCGGCGGCGGGGTCTCCCGCAAAGCCTCGAACCCTGCG GGCAGTGGACCCAATCACCACGCGCCGCAGCTGTCTAGCGACTCGGTGCTGCCTCTCTATTCTCTGGGCC CCGGAGAGCGAGCGCACAACACCGGTGGCACCAAAGTCTTTCCGGAACGCAGCGGGAGCGGCAGTGCCAG TGGCAGCGGGGGCGGGGGCGACTTGGGCTTCCTACACCTTGACTGTGCCCCAAGTAACTCGGATTTCTTC CTCAATGGAGGATACAGCTACCGAGGGGTCATTTTTCCAACCCTACGCAACTCCTTCAAGTCTCGGGATC TGGAGCGCCTCTACCAACGCTATTTCCTGGGCCAGAGGCGCAAATCGGAGGTAGTGATGAACGTGTTGGA TGTACTAACCAAACTCACCCTTTTAGTCCTGCACTTGAGCCTGGCCTCGGCTCCAATGGACCCTCTCAAG GGCATCCTGCTAGGCTTTTTCACTGGCATCGAGGTGGTGATCTGCGCCCTCGTGGTGGTCAGGAAGGACA ACACCTCCCACACTTACCTGCAATACAGCGGCGTGGTCACTTGGGTGGCTATGACCACCCAGATTCTGGC AGCAGGCCTGGGCTATGGGCTTCTGGGCGACGGCATAGGCTACGTGCTTTTTACACTCTTCGCCACCTAC AGCATGCTTCCCCTGCCTCTCACCTGGGCCATCTTGGCCGGCCTGGGCACATCTTTGCTGCAAGTCACCC TTCAAGTACTCATACCCAGGCTAGCGGTCTTTTCCATCAACCAGGTCCTGGCCCAGGTGGTGCTATTCAT GTGTATGAATACAGCAGGAATCTTCATCAGTTACCTTTCAGACCGTGCCCAGCGCCAGGCCTTCCTGGAG ACCCGGAGGTGTGTGGAGGCCAGGCTCCGCTTGGAGACAGAGAACCAAAGACAGGAGCGGCTTGTGCTGT CTGTGCTCCCCAGGTTTGTCGTCCTGGAAATGATCAACGACATGACCAATGTGGAGGATGAGCACCTGCA GCATCAGTTCCACCGCATCTACATCCATCGCTATGAGAACGTCAGTATTCTTTTTGCAGATGTCAAAGGA TTTACCAACCTCTCTACGACCTTGTCTGCTCAGGAGCTGGTCAGGATGCTCAACGAACTCTTTGCCAGAT TCGACCGGCTGGCCCATGAGCATCACTGTCTTCGCATTAAAATCCTGGGGGACTGCTACTACTGTGTGTC TGGACTGCCTGAGCCCCGCCGGGACCACGCTCATTGCTGTGTTGAAATGGGCCTCAGCATGATCAAAACT ATCAGGTTTGTGAGATCCAGAACGAAGCACGATGTTGACATGCGAATTGGAATCCATTCAGGTTCTGTGC

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TATGTGGTGTGTTGGGCCTGAGGAAATGGCAGTTTGATGTCTGGTCTTGGGATGTGGACATAGCAAACAA
GCTTGAGTCTGGAGGAATCCCTGGGAGGATTCACATTTCTAAAGCCACCCTGGATTGCCTCAATGGTGAC
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CACAGTATGACATTTGGGGGAAAACTGTGAACTTGGCAAGCCGAATGGACAGCACGGGAGTAAGTGGCCG
GATCCAAGTTCCTGAGGAGACCTACCTTATCCTGAAGGACCAGGGCTTTGCCTTTGACTACCGTGGGGAG
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CCAACCCATTCATCTTACCCCCAAGGAGACTTCCCGGGCAATACTCTCTGGCTGCGGTTGTCCTTGGCCT
TGTCCAGTCTCTCAACAGGCAAAGGCAGAAGCAACTTCTCAACGAGAACAGCAATTCGGGCATCATCAAG
AGCCATTACAACCGGCGGACTTTGCTAACGCCAAGTGGGCCAGAGCCTGGAGCACAAGCTGAAGGCACTG
ACAAATCCGATTTGCCATAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI

ACCN: NM_001291903

Insert Size: 3660 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

OTI Annotation: Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.

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_001291903.1, NP_001278832.1

RefSeq Size: 4974 bp

RefSeq ORF: 3660 bp

Locus ID: 11514

Cytogenetics: 15 29.03 cM

Gene Summary: Catalyzes the formation of cAMP in response to calcium entry leadings to cAMP signaling activation that affect processes suche 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]
Transcript Variant: This variant (2) lacks an alternate in-frame exon in the 3' coding region, compared to variant 1. The encoded protein (isoform 2) is shorter than isoform 1.