

Product datasheet for **RC216418**

alpha 2C Adrenergic Receptor (ADRA2C) (NM_000683) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	alpha 2C Adrenergic Receptor (ADRA2C) (NM_000683) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	alpha 2C Adrenergic Receptor
Synonyms:	ADRA2L2; ADRA2RL2; ADRARL2; ALPHA2CAR
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC216418 representing NM_000683
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGCGTCCCGCGCTGGCGCGCGCTGGCGTGGCGGACGCGCGGCCCAATGCGAGCGGCGCG
 GCGAGAGGGGACGCGCGGGTTGCCAATGCCTCGGGGGCTTCTGGGGCCGCCGCGCGCCAGTACTC
 GGCGGGCGCGGTGGCAGGGCTGGCTGCCGTGGTGGCTTCTCATCGTCTTACCCTGGTGGCAACGTG
 CTGGTGGTATCGCCGTGCTGACCAGCGGGCGCTGCGCGGCCACAGAACCCTTCTGGTGTCTGCTGG
 CCTCGCCGACATCCTGGTGGCCAGCTGGTATGCCCTTCTCGTTGGCAACGAGCTCATGGCCTACTG
 GTACTTCGGGCAGGTGTGGTGGCGGTGTACTGGCGCTCGATGTGTGTTTTGCACCTCGTCGATCGTG
 CATCTGTGTGCCATCAGCCTGGACCGCTACTGGTCGGTGACGCAGGCCGTCGAGTACAACCTGAAGCGCA
 CACCACGGCGCTCAAGCCACCATCGTGGCCGTGTGGCTCATCTCGGCCGTATCTCTCCCGCCGCT
 GGTCTCGCTTACCGCCAGCCGACGGCGCCCTACCCGAGTGGCCCTCAACGACGAGACCTGGTAC
 ATCCTGTCTCTGCATCGGCTCCTTCTCGCGCCCTGCCTCATCATGGGCTGGTCTACGCGCGCATCT
 ACCGAGTGGCAAAGCTGCGCACGCGCACGCTCAGCGAGAAGCGGCCCGCCCGTGGGCCCGACGGTGCCTC
 CCCGACTACCGAAAACGGGCTGGGCGCGCGGCGAGGCGCAGGCGAGAACGGGCACTGCGCGCCCCGCC
 GCCGACGTGGAGCCGGACGAGAGCAGCGCAGCGCCGAGAGGCGCGCGCCGGGGCGCGTTGCGGCGGG
 GCGGGCGCGCGGAGCGGGCGCCGAGGGGGGCGCGGGCGGTGCGGACGGGAGGGGGCGGGGCGGGGGC
 GGCTGAGTCGGGGCGCTGACCGCTCCAGTCTCGGGCCCGTGGCCGCTGTGCGCGCCAGCTCG
 CGCTCCGTGAGTTCTTCTGTGCGCGCGCGCGGGCGCGCAGCAGCGTGTGCCCGCAAGGTGGCCC
 AGGCGCGCGAGAAGCGCTCACCTTGTGCTGGCTGTGGTATGGGTGTGTTCTGCTGCTGGTTCCTC
 CTCTTCTCAGCTACAGCCTGTACGGCATCTGCCGCGAGGCCTGCCAGGTGCCCGGCCGCTCTTCAAG
 TTCTTCTTCTGGATCGGCTACTGCAACGCTCGCTCAACCCGGTATCTACACGGTCTTCAACCAGGATT
 TCCGGCATCTTTAAGCACATCTCTTCCGACGGAGGAGAAGGGCTTCAAGCAG

ACGCGTACGCGCGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC216418 representing NM_000683
 Red=Cloning site Green=Tags(s)

MASPALAAALAVAAAAGPNASGAGERGSGGVANASGASWGPFRGQYSAGAVAGLAADVGFIVFTVVGNV
 LVVIAVLTSLRALRAPQNLFLVSLASADILVATLVMPFSLANELMAYWYFGQVWCVYALDVLFTSSIV
 HLCAISLDRYWSVTQAVEYNLKRTPRRVKATIVAVWLISAVISFPPLVSLYRQPDGAAYPQCGLNDET
 WYILSSICGSFFAPCLIMGLVYARIYRVAKLRTRTLSEKRAPVGPDGASPTTENGLGAAAGAGENGHCAPP
 ADVPESSAAAERRRRRGGALRRGRRRAGAEAGGADGQAGPGAAESGALTASRSSGPGRLSRASS
 RSVEFFLSRRRRARSSVCRKVAQAREKRFTFVLAVVMGVFVLCWFPFFFSYSLYGICREACQVPGPLFK
 FFFWIGYCNSLNPVIYTVFNQDFRRSFKHILFRRRRRGRFQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mg2859_h01.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:



ACCN: NM_000683

ORF Size: 1386 bp

OTI Disclaimer: 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.

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.

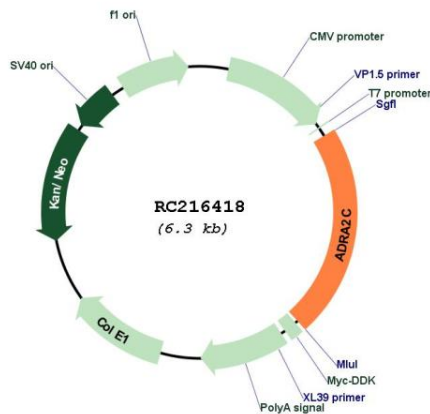
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- 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.

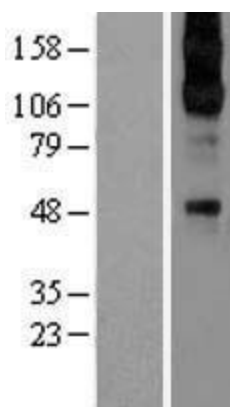
RefSeq: [NM_000683.3, NP_000674.2](#)
RefSeq Size: 1958 bp
RefSeq ORF: 1389 bp
Locus ID: 152
UniProt ID: [P18825](#)
Cytogenetics: 4p16.3
Protein Families: Druggable Genome, GPCR, Transmembrane
Protein Pathways: Neuroactive ligand-receptor interaction
MW: 49.3 kDa

Gene Summary: Alpha-2-adrenergic receptors are members of the G protein-coupled receptor superfamily. They include 3 highly homologous subtypes: alpha2A, alpha2B, and alpha2C. These receptors have a critical role in regulating neurotransmitter release from sympathetic nerves and from adrenergic neurons in the central nervous system. The mouse studies revealed that both the alpha2A and alpha2C subtypes were required for normal presynaptic control of transmitter release from sympathetic nerves in the heart and from central noradrenergic neurons. The alpha2A subtype inhibited transmitter release at high stimulation frequencies, whereas the alpha2C subtype modulated neurotransmission at lower levels of nerve activity. This gene encodes the alpha2C subtype, which contains no introns in either its coding or untranslated sequences. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC216418



Western blot validation of overexpression lysate (Cat# [LY424574]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC216418 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).