

Product datasheet for **RG216418**

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:	TurboGFP
Symbol:	alpha 2C Adrenergic Receptor
Synonyms:	ADRA2L2; ADRA2RL2; ADRARL2; ALPHA2CAR
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG216418 representing NM_000683
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGCGTCCCGCGCTGGCGCGCGCTGGCGGTGGCGGACGCGCGGGCCCAATGCGAGCGGCGCGG
 GCGAGAGGGGACGCGCGGGTTGCCAATGCCTCGGGGGCTTCTGGGGCCGCCGCGCGCCAGTACTC
 GGCGGGCGCGGTGGCAGGGCTGGCTGCCGTGGTGGCTTCTCATCGTCTCACCGTGGTGGCAACGTG
 CTGGTGGTATCGCCGTGCTGACCAGCCGGGCGCTGCGCGGCCACAGAACCCTTCTGGTGTGCTGG
 CCTCGGCCGACATCCTGGTGGCCACGCTGGTATGCCCTTCTCGTTGGCCAACGAGCTCATGGCCTACTG
 GTACTTCGGGCAGGTGTGGTGGCGGTGTACCTGGCGCTCGATGTGCTGTTTTGCACCTCGTCGATCGT
 CATCTGTGTGCCATCAGCCTGGACCGCTACTGGTGGTACGCAGGCCGTCGAGTACAACCTGAAGCGCA
 CACCACGCCGCTCAAGGCCACCATCGTGGCCGTGTGGCTCATCTCGGCCGTATCTCTCCCGCCGCT
 GGTCTCGCTTACCGCCAGCCGACGGCGCCGCTACCCGAGTGGCCCTCAACGACGAGACCTGGTAC
 ATCCTGTCTCTGCATCGGCTCCTTCTCGCGCCCTGCCTCATCATGGGCTGGTCTACGCGCGCATCT
 ACCGAGTGGCCAAGCTGCGCACGCGCACGCTCAGCGAGAAGCGGCCCGCCCGTGGGCCCGACGGTGCCTC
 CCCGACTACCGAAAACGGGCTGGGCGCGCGGCGAGGCGCAGGCGAGAACGGGCACTGCGCGCCCCGCC
 GCCGACGTGGAGCCGGACGAGAGCAGCGCAGCGGCCGAGAGGCGCGCGCCGGGGCGCGTTGCGGCGGG
 GCGGGCGCGCGGAGCGGGCGCGGAGGGGGGCGCGGGCGGTGCGGACGGGAGGGGGCGGGGCGGGGGC
 GGCTGAGTCGGGGCGCTGACCGCTCCAGTCCCGGGGCCCGTGGCCGCTGTGCGCGCCAGCTCG
 CGCTCCGTCGAGTTCTTCTGTGCGCGCGCGCGCGGGCGCGCAGCAGCGTGTGCCCGCAAGGTGGCC
 AGGCGCGCGAGAAGCGTTCACCTTTGTGCTGGCTGTGGTATGGCGGTGTTCTGCTGCTGCTGGTCCC
 CTCTTCTTACAGCTACAGCCTGTACGGCATCTGCGCGAGGCCTGCCAGGTGCCCGCCCGCTTCAAG
 TTCTTCTTGGATCGGCTACTGCAACGCTCGCTCAACCCGGTATCTACACGGTCTTCAACCAGGATT
 TCCGGCATCTTTAAGCACATCTTCCGACGGAGGAGAAGGGCTTCAGGCAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG216418 representing NM_000683
 Red=Cloning site Green=Tags(s)

MASPALAAALAVAAAAGPNASGAGERGSGGVANASGASWGPARGQYSAGAVAGLAAVVGFLLIVFTVVGNV
 LVVIAVLTSLRALRAPQNLFLVSLASADILVATLVMPFSLANELMAYWYFGQVWCVYALDVLFTSSIV
 HLCAISLDRYWSVTQAVEYNLKRTPRRVKATIVAVWLISAVISFPPLVSLYRQPDGAAYPQCGLNDET
 WYILSSCIGSFFAPCLIMGLVYARIYRVAKLRTRLSEKRAPVGPDPGASPTTENGLGAAAGAGENGHCAPP
 ADVPEDESSAAAERRRRRGGALRRGRRRAGAEGGAGGADGQAGPGAESGALTASRSPGPGRLSRASS
 RSVEFFLSRRRRARSSVCRKVAQAREKRFVFLAVVMGVFVLCWFPFFFSYSLYIGICREACQVPGPLFK
 FFFWIGYCNSLNPVIYTVFNQDFRRSFKHILFRRRRRGFRQ

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

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).

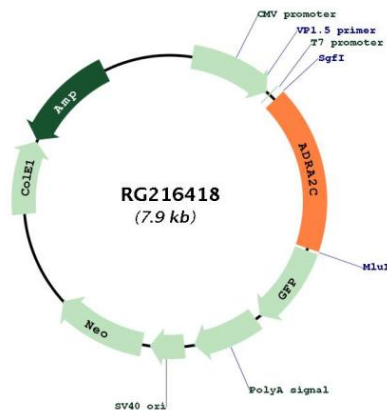
- Reconstitution Method:**
1. Centrifuge at 5,000xg for 5min.
 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
 3. Close the tube and incubate for 10 minutes at room temperature.
 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the 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_000683.4](#)

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

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 RG216418