

Product datasheet for **RG204499**

beta 2 Adrenergic Receptor (ADRB2) (NM_000024) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	beta 2 Adrenergic Receptor (ADRB2) (NM_000024) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	beta 2 Adrenergic Receptor
Synonyms:	ADRB2R; ADRBR; B2AR; BAR; BETA2AR
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG204499 representing NM_000024 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGGGCAACCCGGGAACGGCAGCGCCTTCTTGCTGGCACCCAATGGAAGCCATGCGCCGGACCACGACG
TCACGCAGCAAAGGGACGAGGTGTGGTGGTGGGCATGGGCATCGTCATGTCTCTCATCGTCCTGGCCAT
CGTGTGGCAATGTGCTGGTCAACAGCCATTGCCAAGTTCGAGCGTGCAGACGGTACCAACTAC
TTCATCACTTCACTGGCCTGTGCTGATCTGGTCACTGGCCTAGCAGTGGTGCCTTTGGGCGGCCATA
TTCTTATGAAAAATGTGGACTTTTGGCACTTCTGGTGGCAGTTTTGGACTCCATTGATGTGCTGTGCGT
CAGGGCCAGCATTGAGACCCTGTGCGTATCGCAGTGGATCGCTACTTTGCCATTACTTCACCTTCAAG
TACCAGAGCCTGCTGACCAAGAATAAGGCCCGGTGATCATTCTGATGGTGTGGATTGTGTCAGGCCCTA
CCTCCTTCTTGCCATTGAGATGCACTGGTACAGGGCCACCCACCAGGAAGCCATCAACTGCTATGCCAA
TGAGACCTGTGTGACTTCTTACGAACCAAGCCTATGCCATTGCCTCTTCCATCGTGTCTTCTACGTT
CCCCTGGTGTATGCTTCTGCTACTCCAGGGTCTTTCAGGAGGCCAAAAGGCAGTCCAGAAGATTG
ACAAATCTGAGGGCCGCTTCCATGTCCAGAACCTTAGCCAGGTGGAGCAGGATGGGCGGACGGGGCATGG
ACTCCGCAGATCTTCAAGTCTGCTTGAAGGAGCACAAAGCCCTCAAGACGTTAGGCATCATCATGGCC
ACTTTCACCCTCTGCTGGTGCCTTCTCATCGTTAACATTGTGCATGTGATCCAGGATAACCTCATCC
GTAAGGAAGTTTACATCCTCCTAAATTGGATAGGCTATGTCAATTCTGGTTTCAATCCCCTTATCTACTG
CCGGAGCCAGATTTAGGATTGCTTCCAGGAGCTTCTGTGCCTGCGCAGGTCTTCTTTGAAGGCCTAT
GGCAATGGCTACTCCAGCAACGGCAACACAGGGGAGCAGAGTGGATATCACGTGGAACAGGAGAAAGAAA
ATAAACTGCTGTGAAGACCTCCAGGCACGGAAGACTTTGTGGCCATCAAGTACTGTGCCTAGCGA
TAACTTATTACCAGGGAGGAATTGTAGTACAAATGACTCACTGCTA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG204499 representing NM_000024
 Red=Cloning site Green=Tags(s)

MGQPGNGSAFLLAPNGSHAPDHDVTQQRDEVVWVGMGIVMSLIVLAIVFGNVLVITAIKFERLQTVTNY
 FITSLACADLVMGLAVVPFGAAHILMKMWTFGNFWCFWTSIDVLCVTASIELTCVIAVDYFAITSPFK
 YQSLLTKNKARVILMVIVSGLTSFLPIQMHWRATHQEAINCYNANETCCDFFTNQAYAIASSIVSFYV
 PLVIMVFVYSRVFQEAQRQLQKIDKSEGRFHVQNL SQVEQDGRGTGHLRRSSKFCLKEHKALKTLGIIMG
 TFTLCWLPFFIVNIVHVIQDNLIRKEVYILLNWI GYVNSGFNPLIYCRSPDFRIAFQELLCLRRSSLKAY
 GNGYSSNGNTGEQSGYHVEQEKENKLLCEDLPGTEDFVGHQGTVPSDNIDSPGRNCSTNDSLL

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_000024

ORF Size: 1239 bp

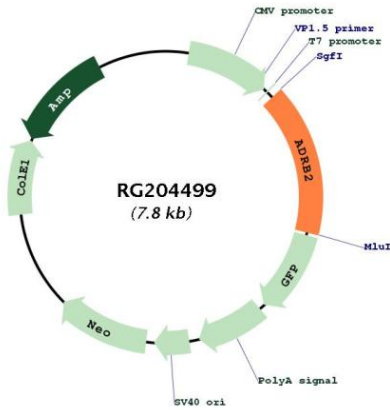
OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA 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:	<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:	<u>NM_000024.3, NP_000015.1</u>
RefSeq Size:	2015 bp
RefSeq ORF:	1242 bp
Locus ID:	154
UniProt ID:	<u>P07550</u>
Cytogenetics:	5q32
Domains:	7tm_1
Protein Families:	Druggable Genome, GPCR, Transmembrane
Protein Pathways:	Calcium signaling pathway, Endocytosis, Neuroactive ligand-receptor interaction
Gene Summary:	This gene encodes beta-2-adrenergic receptor which is a member of the G protein-coupled receptor superfamily. This receptor is directly associated with one of its ultimate effectors, the class C L-type calcium channel Ca(V)1.2. This receptor-channel complex also contains a G protein, an adenylyl cyclase, cAMP-dependent kinase, and the counterbalancing phosphatase, PP2A. The assembly of the signaling complex provides a mechanism that ensures specific and rapid signaling by this G protein-coupled receptor. This receptor is also a transcription regulator of the alpha-synuclein gene, and together, both genes are believed to be associated with risk of Parkinson's Disease. This gene is intronless. Different polymorphic forms, point mutations, and/or downregulation of this gene are associated with nocturnal asthma, obesity, type 2 diabetes and cardiovascular disease. [provided by RefSeq, Oct 2019]

Product images:



Circular map for RG204499