

**Specifications:**

Gene:	rAdra1a
Accession:	NP_058887.2
Insert size:	1414bp
Concentration:	10µg at 0.2µg/µL

**rADRA1A cDNA  
Plasmid**

**Adra1a adrenoceptor alpha 1A**  
[ *Rattus norvegicus* (Norway rat) ]

**Also known as:** Adra1c

**Summary:**

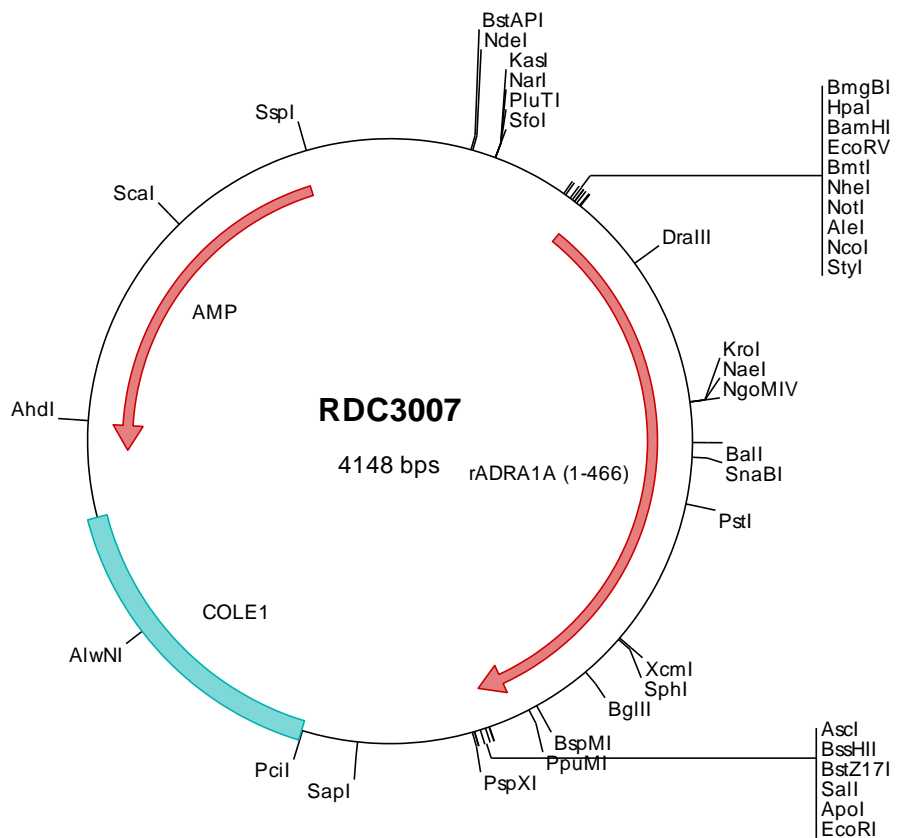
Alpha-1-adrenergic receptors (alpha-1-ARs) are members of the G protein-coupled receptor superfamily. They activate mitogenic responses and regulate growth and proliferation of many cells. There are three alpha-1-AR subtypes: alpha1A, -1B and -1D, all of which signal through the Gq/11 family of G proteins. These various subtypes show different patterns of activation. ADRA1A is the alpha-1A-adrenergic receptor. ADRA1A is expressed in heart, brain, liver and prostate, but not in kidney, lung, adrenal, aorta and pituitary.

**Description**

This shuttle vector contains the complete ORF for the gene of interest, along with a Kozak consensus sequence for optimal translation initiation. It is inserted NotI to AscI. The gene insert is flanked with convenient multiple cloning sites which can be used to easily cut and transfer the gene cassette into your desired expression vector.

**Preparation and Storage**

Formulation	cDNA is provided in 10 mM Tris-Cl, pH 8.5
Shipping	Ships at ambient temperature
Stability	1 year from date of receipt when stored at -20°C to -80°C
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles.



> RDC3007 Plasmid DNA Sequence

```

1 tcgctgcttt cggatgatgac ggtgaaaacc totgacacat gcagctcccg gagacgggtca cagcttgtct gtaagcggat gccgggagca gacaagcccg
101 tcagggcgcg tcagcgggtg ttggcgggtg tcggggctgg cttactatg cggcatcaga gcagattgta ctgagagtgc accatatgcg gtgtgaaata
201 ccgcacagat gcgtaaggag aaaataccgc atcaggcgcc attcgcatt caggctcgcg aactgttggg aagggcgatc ggtcgggcc tcttcgctat
301 tacgccagct ggcgaaaagg ggatgtgctg caaggcgatt aagttgggta acgccagggt ttcccagtc acgacgttgt aaaacgacgg ccagtgaatt
401 ggagacgtgt taacaagctt ggatccgata tcgctagcgc ggccgcacc atggtgcttc tctctgaaaa tgcttcggaa ggctccaact gcaccacc
501 accagctccg gtgaacattt ctaaggccat tctgcttggg gtgatcttgg ggggcctcat cattttcgga gtcctgggga acattttagt gatcctotca
601 gtggcctgtc atcggcatct gcaactcgtg actcaact acattgtcaa cctggctgtg gcagacctcc tctcaccctc cactgtgtgt cccttctctg
701 ccatctttag gatctcgggc taactgggct ttggcagggt gttctgcaat atctggggcg ccgtggagct cttatgtctg acagctgcca tcgatggcct
801 ctgcatcacc tccatcgacc gatacattgg gtgagctac ccgtcgcct atcccacct gtcaccacc aggaggggcg tcagggtct gctctgcgtc
901 tggtgtcttt ctttggtcat ctccatcgga ccctgttgg gctggaggca gccggctcca gaggaatgaga ccatctgcca gatcaatgag gagccgggct
1001 acgtgtcttt ctcagcgtg ggctctttct acgtgccact ggccatcatt ctggttatgt actgtcagat ctacgtagta gccaagagag aaagccgggg
1101 ctcaagtc ggcctcaaga cggacaagtc agactcagag caagtgaagc tcgcctacca ccgtaaaaa gtcccctcag aaggccggcg agtcaagcgt
1201 gccaagaata agactcaact ctcagtggg ctgctcaagt ttctcagaga gaagaaagct gccaagacgc tgggcaatct ggtgggttgc ttcgtctct
1301 ctggctgccc gttcttctca gtgatccca ttgggtcttt cttccagct ttcaagcctt cggaaaacct ttttaaaaa gtattttggc tcgggtatct
1401 aaatagttgc atcaacccta tcataacc atgctccagc caggagtcca agaagcctt tcagaatgtc ctggcaatcc agtgctctcg cagaaggcag
1501 ctttccaagc atgcoctggg ctataccctg caaccgcca gccagctct agagggacag cacagagaca tggtgcgtat cccggtgggc tcgggagaga
1601 ctttctata gatctcgaag acagatggag taagttttct gaaagtcttc tcttccatgc cccagggtat ggccaggtat acagtgcca aggaccaatc
1701 tgctctgacc accgcccggg tgagaagtaa aaagtttttg caggtctgct gctgtgtggg gtcctcggcc ccgcgcccctg aagaaaaaca ccaagtcca
1801 accattaaga tccacccctc ctcctcgggt gaaaaagggg aggaagtcta aaggcgcgcc agtatactct agagtcgaca cccggggaat ctctcagcgc
1901 ctcgtctcta gcttggcgta atcatggta tagctgttct ctgtgtgaaa ttggttatccg ctcacaatto cacacaacat acgagccgga agcataaagt
2001 gtaaaagcct gggtgcctaa tgagttagct aactcacatt aattgcgttg ccgtcactgc ccgctttcca gtcgggaaac ctgtcgtcgc agctgcatta
2101 atgaatcggc caacgcgcgg ggagagggcg tttgcgtatt ggcgctctct ccgtctctcc gctcactgca tcgctgcgct cggtcgttgc gctgvggca
2201 gcggtatcag ctcactcaaa ggcgttaata cggttatcca cagaatcagg ggataacgca ggaaaagaaca tgtagagcaa agccagcaaa aagggccagga
2301 accgtaaaaa ggcgcgcttg ctggcgtttt tccatagctc ccgccccctc gacgagcctc acaaaaatcg acgctcaagt cagaggtggc gaaaccggac
2401 aggactataa agataaccag cgtttcccc tggaaagctc ctgtgcgct ctcctgttcc gacctcgcg cttaccggat accgtccgc ctttctctct
2501 tcgggaagcg tgggcgtttc tcaatgctca cgctgttagt atctcagttc gggttaggtc gttcgctcca agctgggctg tgtagcagaa ccccccgttc
2601 agcccagcgc ctgcgcctta tccggttaact atcgtcttga gtccaaccgc gtaagacacg acttatcgc actggcagca gccaactgga acaggattag
2701 ccagcagagg tatgtaggcg gtgctacaga gttcttgaag tggtggccta actacggcta actagaagg acagtatattg gtatctcgc ctgtctgaag
2801 ccagttacct tcggaaaaag agtttgtagc tcttgatccg gcaaacaaac caccgctggt agcgggtggt ttttgtttg gaacagcag attacgcgca
2901 gaaaaaaaag atctcaagaa gatcctttga tcttttctac gggtctctgac gctcagtgga acgaaaaact acgttaaggg attttggtca tgagattatc
3001 aaaaaggatc ttcacctaga tccttttaaa ttaaaaatga agttttaaat caatctaaag tatatatgag taaaacttgg ctgacagtta ccaatgctta
3101 atcagttagg cacctatctc agcagctctg ctatctctgt catccatagt tgctgactc cccgtcgtgt agataactac gatacgggag ggcttaccat
3201 ctggccccag tgctgcaatg ataccgcgag accacgcctc accggctcca gatttatcag caataaacca gccagccgga agggccgagc gcagaagtgg
3301 tcttgcaact ttatccgcct ccatccagtc tattaattgt tgccgggaag ctagagttag tagttcccca gttaatagtt tgcccaact tggttgcatt
3401 gctacaggca tcgttgtgtc acgctcgtcg tttggtatgg cttcattcag ctccggttcc caacgatcaa ggcgagttac atgatcccc atgttgtgca
3501 aaaaagcgg tagctccttc ggtcctccga tcgttgtcag aagtaagtgt gcgcagtg tatcactcat ggttatggca gcactgcata attctcttc
3601 tgctcatgcca tccgtaagat gcttttctgt gactggtag tactcaacca agtcattctg agaatagttg atgcccgcac cgagttgctc ttgcccggcg
3701 tcaatacggg ataataccgc gccacatagc agaactttaa aagtgtctat cattgaaaa cgttctctcg ggcgaaaact ctcaaggatc ttaccgctgt
3801 tgagatccag ttcgatgtaa cccactcgtg cacccaactg atcttcagca tcttttactt tcaccagcgt ttctgggtga gcaaaaaacag gaaggcaaaa
3901 tgccgcaaaa aagggaataa ggcgcacacg gaaatgttga atactcatac tcttcttttt tcaatattat tgaagcattt atcagggtta ttgtctcactg
4001 agcggataca tatttgaatg tatttagaaa aataaaciaa taggggttcc gcgcacattt ccccgaaaag tgccacctga cgtctaagaa accattatta
4101 tcattgacatt aacctataaa aataggcgta tcacaggccc ctttcgtc

```

> RDC3007 Translated Insert Sequence

```

1 mvlisenase gsncthppap vniskaillg vilgglifg vlnilvils vachrhshsv thyyivnlav adllltstvl pfsaifeilg ywafgrvfcn
101 iwaavdvlec tasimglci sidyiyvsv ptryptivtg rrgvrallcv wvlslvisig plfgwrqpap edeticqine epgyvlfsal gsfyvplaii
201 lvmycrvyvv akresrglks glktdksdse qvtrlrhrkn vpaeggvs aknkthfsvr llkfsrekka aktlgivvvc fvlclwlpffl vmpigsffpd
301 fkpsetvfki fwlglynsc inpiypcsc qefkkafqnv lriqlrrrq sskhalgtyl hppsqalegg hrdmvrivpv sgetfykisk tdgvcewkff
401 smpqgsari tvpkdqsact tarvrsksfl qvccvgsa prpeenhvqp tikhtislg engeev

```