

Specifications:

Gene:	<i>h</i> AVPR2
Accession:	NP_000045
Insert size:	1129bp
Concentration:	10µg at 0.2µg/µL

*h*AVPR2 cDNA Plasmid

AVPR2 arginine vasopressin receptor 2 [*Homo sapiens*]

Also known as: DI1; DIR; NDI; V2R;
ADHR; DIR3

Summary:

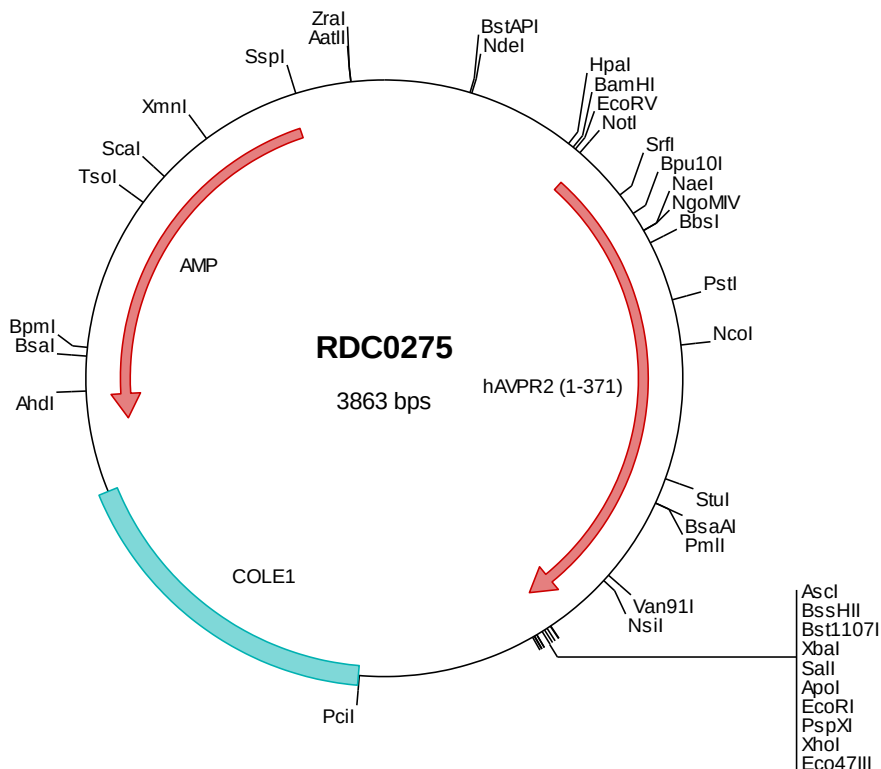
AVPR2 is the vasopressin receptor, type 2, also known as the V2 receptor, which belongs to the seven-transmembrane-domain G protein-coupled receptor (GPCR) superfamily, and couples to Gs thus stimulating adenylate cyclase. The subfamily that includes AVPR2 is well conserved, though several members signal via other G proteins. AVPR2 is expressed in the kidney tubule, predominantly in the distal convoluted tubule and collecting ducts, where its primary property is to respond to the pituitary hormone arginine vasopressin (AVP) by stimulating mechanisms that concentrate the urine and maintain water homeostasis in the organism. When the function of this gene is lost, the disease Nephrogenic Diabetes Insipidus (NDI) results.

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.





> RDC0275 Plasmid DNA Sequence

```
1   tcgcgcggttt cggatgatgac ggtgaaaacc tctgacacat gcagctcccg gagacggtca cagcttgtct gtaagcggat gccgggagca gacaagcccg
101  tcaggggcgcg tcagcgggtg ttggcgggtg tcggggctgg cttactatg cggcatcaga gcagattgta ctgagagtgc accatatgcg gtgtgaaata
201  ccgcacacgat gcgtaaggag aaaataccgc atcaggcgcc attcgccatt caggctgcgc aactgttggg aaggcgcatc ggtgcgggcc tcttcgctat
301  tacgccagctt ggcgaagggt ggaatgtctg caaggcgatt aagtttggta acgccagggt tttccagtc acgacgttgt aaaacgacgg ccagtgaatt
401  ggagacgtgt taacaagctt ggaatccgata tcgctagcgc ggccgcacac atgctcatgg cgtccaccao ttcgctgttg cctgggcata cctctctgcc
501  cagctgcgcc agcaacagca gccaggagag gccactggac acccgggacc cgtctgtagc ccgggcggag ctggcgtgco tctccatagt ctttgttggc
601  gtggccctga gcaatggcct ggtgctggcg gccactagtc ggccggggccg gcggggccac tgggcaccca tacagttctt cattggccac ttgtgcttgg
701  ccgacctggc cgtggctctg ttccaaagtgc tgccccagct ggcttggaag gccaccgacc gcttcctgtg gccagatgcc ctgtgtcggg ccgtgaagta
801  tctgcagatg gtgggcaatg atgcctcttc ctacatgato ctggccatga cgttggaacc ccaccgtgcc atctgcctgc ccatgtctgg gtaccgcaat
901  ggaagtgggg ctcaactggaa ccggcccggtg ctagtggctt gggcctcttc gctcctcttc agcctgcccc agctcttcat cttgccccag cgcaactgtg
1001 aaggtggcag ccgggtgaact gactgtctgg cctgtcttgc ggagccctgg ggccgtgcga cctatgtcac ctggattgcc ctgatgtgtg tcgtggcacc
1101 taccctgggt atcgccgcct gccagtgctt catcttccgg gagattcatg ccagctctgt gccagggcca tcagagaggg cctggggggc ccgcaaggga
1201 cgccggagcag gcagccccgg tgaggagacc cagctgtcag cagctgtggc caagactgtg aggatgacgc tagtgattgt ggtcgtctat gtctgtgct
1301 gggcacccctt cttcctgggt cagctgtggg ccgctgggga cccggaggca cctctggaag gggcgccctt tgtgtgtctc atgttctgtg ccagctcaa
1401 cagctgcacc aaccctgga tctatgcata ttccagcag agcgtgtcct cagagctgcg aagcttgcct tgctgtgccc ggggacgcac cccacccagc
1501 ctgggtcccc aagatgagtc ctgcaacacc gccagctcct ccttgggcaa ggacacttca tctgtaaagg ggcgaagtat actctagagt cgacacccgg
1601 ggaattcttc gagcgctcgt ctctagcttg gcgtaatcat ggtcatagct gtttctctgt tgaattgttt atccgctcac aattccacac aacatacgag
1701 ccggaagcat aaagtgtaaa gccctgggtg cctaattgagt gagctaaact acattaattg cgttgcgctc actgcccgtt ttccagtgcg gaaacctgtc
1801 gtgccagctg cattaatgaa tcggccaacg cgcggggaga ggcggtttgc gtattggcg cttctccgct tctcgtctca ctgactcgct gcgctcggtc
1901 gttcggctgc ggcgagcggt atcagctcac tcaaaaggcg taatacgggt atccacagaa tcaggggata acgcaggaaa gaacatgtga gcaaaaggcc
2001 agcaaaaggc caggaaccgt aaaaaggccg cgttgcctgc gtttttccat aggtctcgcc cccctgacga gcatacacia aatcgacgt caagtcagag
2101 gtggcgaaac ccgacaggac tataaagata ccagcgcttt cccctgggaa gctcctctgt gctcctctct gttccgacct tgcgcttac cggataacct
2201 tccgccttcc tcccttcggg aagcgtggcg ctttctcaat gctcacgctg taggtatctc agttcgttgt aggtcgttgc ctccaagctg ggctgtgtgc
2301 acgaaccccc cgttcagccc gaccgctgcg ccttatccgg taactatcgt cttgagtcca acccgtaag acacgactta tcgccaactg cagcagccac
2401 tggtaacagg attagcagag cgaggtatgt aggcggtgct acagagtctt tgaagtgtgt gcctaactac ggctacacta gaaggacagt atttggtatc
2501 tgcgctctgc tgaagccagt taccttcgga aaaagagttg ttagctcttg atccggcaaa caaacaccg ctggtagcgg tggttttttt gtttgaagc
2601 agcagattac gcgcagaaaa aaaggatctc aagaagatcc tttgatcttt tctacggggt ctgacgtcca gtggaacgaa aactcacgtt aagggatttt
2701 ggtcatgaga ttatcaaaaa ggaatctcac ctatagctct ttaaatataa aatgaagttt taaatcaato taaagtatat atgagtaaac ttggtctgac
2801 agttaccaat gcttaatcag tgaggcacct atctcagcga tctgtctatt tcgttcatcc atagttgcct gactccccgt cgtgtagata actacgatac
2901 gggagggcct accatctggc ccagtgctg caatgatacc gcgagacca cgtctaccgg ctccagattt atcagcaata aaccagccag ccggaagggc
3001 cgagcgacga agtggtcctg caactttatc cgctccatc cagctctatta attgttgcg ggaagctaga gtaagtgtt cgccagttaa tagtttgcc
3101 aacgttgttg ccattgtctac aggcacgtg gtgtcacgct cgtcgttttg tatggcttca ttcagctccg gttcccaacg atcaaggcga gttacatgat
3201 cccccatggt gtgcaaaaaa gcggttagct ccttcggtcc tccgatcgtt gtcagaagta agttggccgc agtggtatca ctcatgttta tggcagcact
3301 gcataattct cttactgtca tgccatccgt aagatgcttt totgtgactg gtgagtaact aaccaagtca ttctgagaat agtgatgcg gcgaccgagt
3401 tgctcttgcc cggcgtcaat accggataat accgcgccac tctgtcaccc aactgatctt ctcactattg gaaaacgttc ttccggggcg aactctcaa
3501 ggatcttacc gctgttgaga tccagttcga tgtaacccac cgtgtcaccc aactgatctt cagcatcttt tactttcacc agcgtttctg ggtgagcaaa
3601 aacaggaagg caaaatgccg caaaaaagg aataaggcg acacggaaat gttgaatact catactcttc ctttttcaat attattgaag catttatcag
3701 ggttattgtc tcatgacgg atacatat ttgaattatt agaaaaataa acaaatagg gttccgcgca catttccccg aaaagtgcc cctgacgtct
3801 aagaaacat tattatcatg acattaacct ataaaaatag gcgtatcac agggcctttc gtc
```

> RDC0275 Translated Insert Sequence

```
1   mlmasttsav pghpslpslp snssqerpld trdpllarae lallsivfva valsnlglvla alarrgrgrh wapihvfigh lcladlaval fqvlpqlawk
101  atdrfrgpd a lcravkylqm vgmyassymi lamtlldrhra icrpmlayrh gsgahwnrpv lvawafsl11 slpqlfifaq rnveggsgvt dcwacfaepw
201  grtyvtwia lmvfvaptlg iaacqvlifr eihaslvpgp serpggrrrg rrtgspgega hvsaavaktv rmtlvivvvy vlwcapfflv qlwaawdpea
301  plegapfvll mllaslnsct npwiyasfss svsselsrl1 ccargtrtps lgpqdesctt assslakdts s
```