

## Product datasheet for **SC115220**

### AVPR V2 (AVPR2) (NM\_000054) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	AVPR V2 (AVPR2) (NM_000054) Human Untagged Clone
Tag:	Tag Free
Symbol:	AVPR V2
Synonyms:	ADHR; DI1; DIR; DIR3; NDI; NDI1; V2R
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)

**Fully Sequenced ORF:** >OriGene sequence for NM\_000054, RT-PCR generated  
ATGCTCATGGCGTCCACCACTTCGCTGTGCCTGGGCATCCCTCTCTGCCAGCCTGCC  
AGCAACAGCAGCCAGGAGAGGCCACTGGACACCCGGGACCCGCTAGCCCGGGGGAG  
CTGGCGCTGCTCTCCATAGTCTTTGTGGCTGTGGCCCTGAGCAATGGCCTGGTGTGGC  
GCCCTAGCTCGGCGGGGCCGGGGCCACTGGGCACCCATACACGTCTTCATTGGCCAC  
TTGTGCCTGGCCGACCTGGCCGTGGCTCTGTTCCAAGTGTGCCCCAGCTGGCCTGGAAG  
GCCACCGACCGCTTCCGTGGGCCAGATGCCCTGTGTGGGCCGTGAAGTATCTGCAGATG  
GTGGGCATGTATGCCTCCTCCTACATGATCCTGGCCATGACGCTGGACCGCCACCGTGC  
ATCTGCCGTCCCATGCTGGCGTACCGCCATGGAAGTGGGGCTCACTGGAACCGCCGGTG  
CTAGTGGCTTGGCCTTCTCGCTCCTTCTCAGCCTGCCCCAGCTTTCATCTTCGCCAG  
CGCAACGTGGAAGGTGGCAGCGGGTCACTGACTGCTGGGCCTGCTTTCGGGAGCCCTGG  
GGCCGTGCACCTATGTACCTGGATTGCCCTGATGGTGTTCGTGGCACCTACCTGGGT  
ATCGCCGCTGCCAGGTGCTCATCTCCGGGAGATTCATGCCAGTCTGGTGCCAGGGCCA  
TCAGAGAGGCCTGGGGGGCGCCGAGGGGACGCCGGACAGGCAGCCCCGGTGAGGGAGCC  
CACGTGTGAGCAGCTGTGGCCAAGACTGTGAGGATGACGCTAGTATTGTGGTGTCTAT  
GTGCTGTGCTGGGCACCTTCTTCTGCTGCTGCTGTGGCCGCGTGGGACCCGGAGGCA  
CCTCTGGAAGGGGCGCCCTTTGTGCTACTCATGTTGCTGGCCAGCCTCAACAGCTGCACC  
AACCCCTGGATCTATGCATCTTTCAGCAGCAGCGTGTCCCTCAGAGCTGCCAAGCTTGCTC  
TGCTGTGCCCGGGGACGCACCCACCCAGCCTGGGTCCCCAAGATGAGTCCTGCACCACC  
GCCAGCTCCTCCCTGGCCAAGGACACTTCATCGTGA



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<b>5' Read Nucleotide Sequence:</b>	>OriGene 5' read for NM_000054 unedited GGGGAAGCTTGGATTTGTAACGACTTATATAGGCGGCCGCGNAATCAGATCTGGTACCGA GCTCGGATCCACTAGTAACGGCCGCCAGTGTGCTGGAATTCGGCTTATGCTCATGGCGTC CACCACTCCCGTGTGCCTGGGCATCCCTCTGCCCAGCCTGCCAGCAACAGCAGCCA GGAGAGGCCACTGGACACCCGGGACCCGCTGCTAGCCCGGGCGGAGCTGGCGCTGCTCTC CATAGTCTTTGTGGCTGTGGCCCTGAGCAATGGCCTGGTGTGGCGGCCCTAGCTCGGCG GGGCCGGCGGGCCACTGGGCACCCATACACGTCTTCATTGGCCACTTGTGCCTGGCCGA CCTGGCCGTGGCTGTGTTCCAAGTGTGCCAGCTGGCCTGGAAGGCCACCGACCCGCTT CCGTGGGCCAGATGCCCTGTGTGCGGCCGTGAAGTATCTGCAGATGGTGGGCATGTATGC CTCCTCTACATGATCCTGGCCATGACGCTGGACCGCCACCGTGCATCTGCCGTCCTAT GCTGGCGTACCGCATGGAAGTGGGGCTCACTGGAACCGCCGGTGTAGTGGCTTGGGC CTTCTCGTCTTCTCAGCCTGCCCCAGCTTTCATCTTCGCCAGCGCAACGTGGAAGG TGGCAGCGGGTCACTGACTGCTGGCCTGCTTTCGGAGCCCTGGGGCCGTGCGACCTA TGTCACCTGGATTGCCCTGATGGTTCGTGGCACCTACCCTGNGTATCGCCGCCTGCCA GGTGCTCATCTCCGGGAGATTCATGCCAGTCTGGTGCCAGGGCCATCAGAGAGGCCCTG GGGGCCCGCCGACGGGGACCGCGACAGGCAGCCCGGTGAGGGAGCCACGTGTGAGCA GCTA
<b>Restriction Sites:</b>	Please inquire
<b>ACCN:</b>	NM_000054
<b>Insert Size:</b>	1500 bp
<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_000054.2</a> , <a href="#">NP_000045.1</a>
<b>RefSeq Size:</b>	1809 bp
<b>RefSeq ORF:</b>	1116 bp
<b>Locus ID:</b>	554
<b>UniProt ID:</b>	<a href="#">P30518</a>
<b>Cytogenetics:</b>	Xq28
<b>Protein Families:</b>	Druggable Genome, GPCR, Transmembrane
<b>Protein Pathways:</b>	Neuroactive ligand-receptor interaction

**Gene Summary:**

This gene encodes 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 the V2 receptor, the V1a and V1b vasopressin receptors, the oxytocin receptor, and isotocin and mesotocin receptors in non-mammals, is well conserved, though several members signal via other G proteins. All bind similar cyclic nonapeptide hormones. The V2 receptor 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. The V2 receptor is also expressed outside the kidney although its tissue localization is uncertain. When these 'extrarenal receptors' are stimulated by infusion of a V2 selective agonist (dDAVP), a variety of clotting factors are released into the bloodstream. The physiologic importance of this property is not known - its absence does not appear to be detrimental in NDI patients. The gene expression has also been described in fetal lung tissue and lung cancer associated with alternative splicing. [provided by RefSeq, Jul 2008]

Transcript Variant: This variant (1) encodes the longer isoform (1).