

Product datasheet for **SC326877**

AVPR V2 (AVPR2) (NM_001146151) Human Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: AVPR V2 (AVPR2) (NM_001146151) Human Untagged Clone
Tag: Tag Free
Symbol: AVPR2
Synonyms: ADHR; DI1; DIR; DIR3; NDI; NDI1; V2R
Mammalian Cell Selection: None
Vector: [pCMV6-XL5](#)
E. coli Selection: Ampicillin (100 ug/mL)
Fully Sequenced ORF: >NCBI ORF sequence for NM_001146151, the custom clone sequence may differ by one or more nucleotides

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ATGCTCATGGCGTCCACCACTTCCGCTGTGCCTGGGCATCCCTCTCTGCCAGCCTGCC
AGCAACAGCAGCCAGGAGAGGCCACTGGACACCCGGGACCCGCTGCTAGCCCGGGCGGAG
CTGGCGTGTCTCCATAGTCTTTGTGGCTGTGGCCCTGAGCAATGGCCTGGTGTGGCG
GCCCTAGCTCGGCGGGCCGGCGGGGCCACTGGGCACCCATACACGTCTTCATTGGCCAC
TTGTGCCTGGCCGACCTGGCCGTGGCTCTGTTCCAAGTGTGCCCCAGCTGGCCTGGAAG
GCCACCGACCGCTTCCGTGGGCCAGATGCCCTGTGTGGGCCGTGAAGTATCTGCAGATG
GTGGGCATGTATGCCTCCTCTACATGATCCTGGCCATGACGCTGGACCGCCACCGTGCC
ATCTGCCGTCCCATGCTGGCGTACCGCCATGGAAGTGGGGCTCACTGGAACCGCCGGTG
CTAGTGGCTTGGCCTTCTCGCTCCTTCTCAGCCTGCCCCAGCTTTCATCTTCGCCAG
CGCAACGTGGAAGGTGGCAGCGGGTCACTGACTGCTGGCCTGCTTTCGGAGCCCTGG
GGCCGTGCACCTATGTACCTGGATTGCCCTGATGGTGTTCGTGGCACCTACCTGGGT
ATCGCCGCTGCCAGGTGCTCATCTTCCGGGAGATTTCATGCCAGTCTGGTGCCAGGGCCA
TCAGAGAGGCCTGGGGGGCGCCGAGGGGACGCCGGACAGCCCGGTGAGGGAGCC
CACGTGTCAGCAGCTGTGGCCAAGACTGTGAGGATGACGCTAGTATTGTGGTGTCTAT
GTGCTGTGCTGGGCACCTTCTTCTGGTGCAGCTGTGGCCCGCTGGGACCCGGAGGCA
CCTCTGGAAGGTGGGTGTAGCCGTGGC
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Restriction Sites: Please inquire
ACCN: NM_001146151
OTI Disclaimer: 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).



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OTI Annotation:	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
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_001146151.1</u> , <u>NP_001139623.1</u>
RefSeq Size:	1788 bp
RefSeq ORF:	930 bp
Locus ID:	554
UniProt ID:	<u>P30518</u>
Cytogenetics:	Xq28
Protein Families:	Druggable Genome, GPCR, Transmembrane
Protein Pathways:	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 (2) has an additional segment in the CDS, as compared to variant 1. The resulting isoform (2) has shorter and different C-terminus, as compared to isoform 1.