

Product datasheet for **SC322091**

Angiotensin II Type 1 Receptor (AGTR1) (NM_004835) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Angiotensin II Type 1 Receptor (AGTR1) (NM_004835) Human Untagged Clone
Tag:	Tag Free
Symbol:	Angiotensin II Type 1 Receptor
Synonyms:	AG2S; AGTR1B; AT1; AT1AR; AT1B; AT1BR; AT1R; AT2R1; HAT1R
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene sequence for SC322091
 GATTCCAGCGCCTGACAGCCAGGACCCAGGCAGCAGCGAGTGACAGGACGTCTGGACCG
 GCGCGCCGCTAGCAGCTCTGCCGGCCGCGCGGTGATCGATGGGGAGCGGCTGGAGCGG
 ACCCAGCGAGTGAGGGCGCACAGCCGGGACGCCGAGGCGGGCGGGGAGACCCGCACCA
 GCGCAGCCGGCCCTCGGCGGGACGTGACGCAGCGCCCGGGCGCGGGTTTGATATTTGAC
 AAATTGATCTAAAATGGCTGGGTTTTATCTGAATAACTACTGATGCCATCCAGAAAAG
 TCGGCACCAGGTGATTTGATATAGTGTGGTGAACAAAATTCGACCCAGGTGATCAAAAAT
 ATTCTCAACTCTTCTACTGAAGATGGTATTAAGAATCCAAGATGATTGCCAAAAGCT
 GGAAGGCATAATTACATATTTGTCATGATTCTACTTTATACAGTATCATCTTTGTGGTG
 GGAATATTTGAAACAGCTTGGTGGTATAGTCATTTACTTTTATATGAAGCTGAAGACT
 GTGGCCAGTGTCTTTTGAATTTAGCACTGGCTGACTTATGCTTTTACTGACTTTG
 CCACTATGGGCTGTCTACACAGCTATGGAATACCGCTGGCCCTTTGGCAATTACCTATGT
 AAGATTGCTTCAGCCAGCGTCAGTTTCAACCTGTACGCTAGTGTGTTTCTACTCACGTGT
 CTCAGCATTGATCGATACCTGGCTATTGTTCAACCAATGAAGTCCCGCTTCGACGCACA
 ATGCTTGTAGCCAAAGTCACCTGCATCATTTGGCTGTGGCAGGCTTGGCCAGTTTG
 CCAGCTATAATCCATCGAAATGATTTTTCATTGAGAACACCAATATTACAGTTTGTGCT
 TTCCATTATGAGTCCAAAATTCACCCCTCCCGATAGGGCTGGGCTGACAAAAATATA
 CTGGGTTTCTGTTTCTTTTCTGATCATTCTTACAAGTTATACTCTTATTTGGAAGGCC
 CTAAAGAGGGCTTATGAAATTCAGAAGAACAACCAAGAAATGATGATATTTTAAAGATA
 ATTATGGCAATTGTGCTTTTCTTTTCTTTTCTGGATTCCCCACCAATATTCACCTTT
 CTGGATGATTTGATTCAACTAGGCATCATACGTGACTGTAGAATTGCAGATATTGTGGAC
 ACGGCCATGCCTATCACCATTTGTATAGCTTATTTTAAACAATTGCCTGAATCCTCTTTT
 TATGGCTTCTGGGGAAAAAATTTAAAGATATTTTCTCCAGCTTCTAAAATATATATCCC
 CAAAAGCCAAAATCCCCTCAAACCTTTCAACAAAATGAGCACGCTTTCCTACCGCCC
 TCAGATAATGTAAGCTCATCCACCAAGAAGCCTGCACCATGTTTTGAGGTTGAGTGACAT
 GTTCGAAACCTGTCCATAAAGTAATTTTGTGAAAGAAGGAGCAAGAGAACATTCTCTGC
 AGCACTTCACTACCAATGAGCCTTAGCTACTTTTCAAGATTGAAGGAGAAAATGCATTA
 TGTGGACTGAACCGACTTTTCTAAAGCTCTGAACAAAAGCTTTTCTTTTCTTTGCAACA
 AGACAAAGCAAAGCCACATTTTGCATTAGACAGATGACGGCTGCTCGAAGAACAATGTCA
 GAAACTCGATGAATGTGTTGATTTGAGAAATTTACTGACAGAAATGCAATCTCCCTAGC
 CTGCTTTTGTCTGTTATTTTTATTTCCACATAAAGGTATTTAGAATATATTAATCGT
 TAGAGGAGCAACAGGAGATGAGAGTTCCAGATTGTTCTGTCCAGTTTCAAAGGGCAGTA
 AAGTTTTCGTGCCGGTTTTTCAAGCTATTAGCAACTGTGCTACACTTGCACCTGGTACTGCA
 CATTTTGTACAAAGATATGCTAAGCAGTAGTCGTCAGTTGCAGATCTTTTGTGAAATT
 CAACCTGTGCTTATAGGTTTACTGCTGCAAAAACAAATGCCCGTAAGATGGCTTATTTGTA
 TAATGGTGTACTAAAGTCACATATAAAGTTAAACTACTTGTAAAGGTGCTGCACTGGT
 CCCAAGTAGTAGTGTCTTCTAGTATATTAGTTTGATTTAATATCTGAGAAGTGTATATA
 GTTTGTGGTAAAAAGATTATATATCATAAAGTATGCCTTCTGTTTAAAAAAGTATATA
 TTCTACACATATATATATGTATATCTATATCTTAAACTGCTGTTAATTGATTAATAA
 CTGGCAAAGTTATATTTACTTTAAAATAAAAATAATTTTATTGCAAAAAAAAAAAAAA

Restriction Sites: Please inquire

ACCN: NM_004835

OTI Disclaimer:	<p>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.</p> <p>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</p>
OTI Annotation:	<p>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.</p>
Components:	<p>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).</p>
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:	NM_004835.3 , NP_004826.2
RefSeq Size:	2336 bp
RefSeq ORF:	1080 bp
Locus ID:	185
UniProt ID:	P30556
Cytogenetics:	3q24
Domains:	7tm_1
Protein Families:	Druggable Genome, GPCR, Transmembrane
Protein Pathways:	Calcium signaling pathway, Neuroactive ligand-receptor interaction, Renin-angiotensin system, Vascular smooth muscle contraction

Gene Summary:

Angiotensin II is a potent vasopressor hormone and a primary regulator of aldosterone secretion. It is an important effector controlling blood pressure and volume in the cardiovascular system. It acts through at least two types of receptors. This gene encodes the type 1 receptor which is thought to mediate the major cardiovascular effects of angiotensin II. This gene may play a role in the generation of reperfusion arrhythmias following restoration of blood flow to ischemic or infarcted myocardium. It was previously thought that a related gene, denoted as AGTR1B, existed; however, it is now believed that there is only one type 1 receptor gene in humans. Alternative splicing of this gene results in multiple transcript variants. [provided by RefSeq, Aug 2020]

Transcript Variant: This variant (3), also known as hAT1R-B (PubMed ID:11158334) or hAT1R-C (PubMed ID:16504375), has an alternate exon in the 5' region, which contains an in-frame AUG start codon, compared to variant 1. The resulting isoform (2) has a longer N-terminus, compared to isoform 1. Variants 3 and 4 encode the same isoform 2. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.