

Product datasheet for **SC108918**

Angiotensin II Type 1 Receptor (AGTR1) (NM_000685) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Angiotensin II Type 1 Receptor (AGTR1) (NM_000685) 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:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF:

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>OriGene sequence for NM_000685 edited
TGGGTTTTTATCTGAATAACTACTGATGCCATCCCAGAAAAGTCGGCACCAGGTGTATTT
GATATAGTGTTTTGCAACAAATTCGACCCAGGTGATCAAAATGATTCTCAACTCTTCTACT
GAAGATGGTATTAAGAAGATCCAAGATGATTGTCCCAAAGCTGGAAGGCATAATTACATA
TTTGTCAATGATTCCTACTTTATACAGTATCATCTTTGTGGTGGGAATATTTGGAAACAGC
TTGGTGGTGATAGTCATTTACTTTTATATGAAGCTGAAGACTGTGGCCAGTGTTTTTCTT
TTGAATTTAGCACTGGCTGACTTATGCTTTTTACTGACTTTGCCACTATGGGCTGTCTAC
ACAGCTATGGAATACCGCTGGCCCTTTGGCAATTACCTATGTAAGATTGCTTCAGCCAGC
GTCAGTTTCAACCTGTACGCTAGTGTGTTTCTACTCACGTGTCTCAGCATTGATCGATAC
CTGGCTATTGTTCAACCAATGAAGTCCCGCCTTCGACGCACAATGCTTGTAGCCAAAGTC
ACCTGCATCATCATTTGGCTGCTGGCAGGCTTGGCCAGTTTCCAGCTATAATCCATCGA
AATGATTTTTTTCATTGAGAACACCAATATTACAGTTTGTGCTTCCATTATGAGTCCCAA
AATTCAACCTTCCGATAGGGCTGGGCTGACCAAAAATACTGGGTTTCTGTTTCTCT
TTTCTGATCATTCTTACAAGTTACTCTTATTTGGAAGGCCCTAAAGAAGGCTTATGAA
ATTCAGAAGAACAACCAAGAAATGATGATATTTTTAAGATAATTATGGCAATTGTGCTT
TTCTTTTTCTTTTCTGGATTCCCACCAAATATTCACTTTTCTGGATGTATTGATTCAA
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ATTTGTATAGCTTATTTTAACAATTGCCTGAATCCTCTTTTTTATGGCTTCTGGGGAAA
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TCAAACCTTTCAACAAAATGAGCAGCTTTTCTACCGCCCTCAGATAATGTAAGCTCA
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GAGCATTAGCTACTTTTTCATGGGTTTTTATCTGAATAACTCACTGATGCCATCCCAGAAA
GTCGGCACCAAGGTGATTTGATATAGTGTGTTGCAACAAATTCGACCCAGGTGATCAAAAT
GATTCTCAACTCTTCTACTGAAGATGGTATTAAGAATCCAAGATGATTGTCCCAAGC
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GCCACTATGGGCTGTCTACACAGCTATGGAATACCGCTGGCCCTTTGGCAATTACCTATG
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TCTCAGCATTGATCGATACCTGGCTATTGTTACCCAATGAAGTCCCGCCTTCGACGCAC
AATGCTTGTAGCCAAAGTCACCTGCATCATCATTGGCTGCTGGCAGGCTTGGCCAGTTT
GCCAGCTATAATCCATCGAAATGATTTTTTTCATTGAGAACACCAATATTACAGTTTGTGC
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ACTGGGTTTCTGTTTCTTTTCTGATCATTCTTACAAGTTATACTCTTATTTGGAAGGC
CCTAAAGAAGGCTTATGAAATTCAGAAGAACAACCAAGAAATGATGATTTTTTAAAGAT
AATTATGGCAATTGTGCTTTTCTTTTCTTTTCTGGATTCCCACCAAATATTCACCTT
TCTGGATGTATTGATTCAACTAGGCATCATACGTGACTGTAGAATTGCAGATATTGTGGA
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CCCAAAAGCCAAATCCCCTCAAACCTTTCAACAAAATGAGCAGCTTTTCTACCGCC
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TGTTCCGAAACCTGTCCATAAAGTAATTTTGTGAAAGAAGGAGCAAGAGAACATTCCTCTG
CAGCACTTCACTACCAAATGAGCATTAGCTACTTTTCA
    
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5' Read Nucleotide Sequence: >OriGene 5' read for NM_000685 unedited
 NNNTTGTCGGATTTTGTATACGACTCCTATAGGGCGGCCGCGATTTCGGCAGCAGCAGGAC
 CCCAGGCAGCAGCGAGTGACAGGACGTCTGGACCGGCGCGCCGCTAGCAGCTCTGCCGGG
 CCGCGGCGGTGATCGATGGGGAGCGGCTGGAGCGGACCCAGCAGTGAGGGCGCACAGCC
 GGGACGCCGAGGCGGGCGGGGAGACCCGACCCAGCGCAGCCGGCCCTCGGCGGGACGT
 GACGCAGCGCCCGGGGCGGGTGGTATTTGACAAATTGATCTAAAATGGCTGGGTTT
 TTATCTGAATAACTCACTGATGCCATCCCAGAAAGTCGGCACCAGGTGATTTGATATAG
 TGTTTGCAACAAATTCGACCCAGGTGATCAAAATGATTCTCAACTCTTCTACTGAAGATG
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 TGATTCCTACTTTATACAGTATCATCTTTGTGGTGGGAATATTTGGAAACAGCTTGGTGG
 TGATAGTCATTTACTTTTATATGAAGCTGAAGACTGTGGCCAGTGTCTTTCTTTGAATT
 TAGCACTGGCTGACTTATGCTTTTTACTGACTTTGCCACTTATGGGCTGTCTACACAGCT
 ATGGAATACCGCTGGCCCTTTGGCAATTACCTATGTAAGATTGCTTCAGCCAGCGTCAGT
 TTCAACCTGTACGCTAGTGTGTTTCTACTCACGTGTCTCAGCATTGATCGATACCTGGCT
 ATTGNTCACCCAATGAAGTCCCGCTTCGACGCACAATGCTTGTAGCCAAAGTCACTGC
 ATCATCATTTGGCTGCTGNCAGCTTGGCCAGTTTGGCGTATTATCCATCGAATGTATT
 TTTCAATTGAGACACATATTACAGTTT

3' Read Nucleotide Sequence: >OriGene 3' read for NM_000685 unedited
 NTTTTCTTCAAAATTTTTTTTTTAAAGTAAATTAACCTTTGCCAGATTTTAAATCAATTAACA
 GCAGTTTAGAGATATAGATATACATATATATATATGTGTAGAATATATACTTTTTTTAAA
 CAGGAAGGCATACTTTATGATATATAATCTTTTTACCACAACTATATACTTCTCAGA
 TATTAATCAAACTAATACTAGGAAGACACTACTACTTGGGACCAGTGCAAGCACCTTT
 ACAAGTAGTTAACTTTTATATGTGACTTTAGTAACACCATTATACAAATAAGCCATCTT
 ACGGGCATTGTTTTGGCAGTGTAACCTATAAGACACAGGTTGAATTTCAAAAAAGATC
 TGCAACTTGACGACTACTGCTTAGCATATCTTTGTACAAAATGTGCAGTACCAGGTGCAA
 GTGTAGCACAGTTGCTAATAGCTGAAAACCGGCACGAAAACCTTACTGCCCTTTGGAAAC
 TGGACAGAACAATCTGGAACCTCATCTCCTGTTGCTCCTCTAACGATTTAATATATTCT
 AAATACCTTTATGTGAAATAAAAAATAACAGGACAAAAGCAGGCTAGGGAGATTGCATT
 TCTGTGAGTAAAATTTCTCAAATCAACACATTCATCGAGTTTCTGACATTGTTCTTCGAG
 CAGCCGTCATCTGCTAATGCAAAATGTGGCTTTGCTTTGTCTTGTGAAAAGGAAAGA
 AAAGCTTTTGTTCAGAGCTTTAGAAAAGTCGGTTCAGTCCACATAATGCATTTTCTCCTT
 CAATTCTNGAAAGTAGCTAATGCTCATTGGTAGTGAAGTGTGCAGAGGAATGTTCTCT
 TGCTCCTTCTTTCACAAATACTNTATGGACAGGNTNCGACATGTCACTCAACCTCAAAC
 AT

Restriction Sites: NotI-NotI

ACCN: NM_000685

Insert Size: 2300 bp

OTI Disclaimer: 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.

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](#)

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:

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_000685.3](#), [NP_000676.1](#)

RefSeq Size: 2347 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 (1), also known as pC2, hAT1R-B (PubMed ID:16504375) or hAT1R-C (PubMed ID:11158334), encodes the predominant isoform (1). Variants 1 and 2 encode the same isoform 1.