

## Product datasheet for **SC124238**

### Angiotensin II Type 1 Receptor (AGTR1) (NM\_031850) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Angiotensin II Type 1 Receptor (AGTR1) (NM_031850) 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)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_031850, the custom clone sequence may differ by one or more nucleotides

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ATGAAGAAAATGAATCACAAAGTCAACTGACAGTCCAAAGGCTCCACAGCTCAGAGGAGGTGATTTGATA
TAGTGTGGTGAACAAATTCGACCCAGGTGATCAAATGATTCTCAACTCTTCTACTGAAGATGGTATTAA
AAGAATCCAAGATGATTGTCCCAAAGCTGGAAGGCATAATTACATATTTGTCATGATTCTACTTTATAC
AGTATCATCTTTGTGGTGGGAATTTGGAAACAGCTTGGTGGTATAGTCATTTACTTTTATATGAAGC
TGAAGACTGTGGCCAGTGTCTTTCTTTGAATTTAGCACTGGCTGACTTATGCTTTTACTGACTTTGCC
ACTATGGGCTGTCTACACAGCTATGGAATACCGCTGGCCCTTTGGCAATTACCTATGTAAGATTGCTTCA
GCCAGCGTCAGTTTCAACCTGTACGCTAGTGTGTTTCTACTCACGTGTCTCAGCATTGATCGATACCTGG
CTATTGTTCAACCAATGAAGTCCCGCTTCGACGCACAATGCTTGTAGCCAAAGTCACTGCATCATCAT
TTGGCTGCTGGCAGGCTTGGCCAGTTTGGCCAGCTATAATCCATCGAAATGTATTTTTTATTGAGAACC
AATATTACAGTTTGTGCTTTCCATTATGAGTCCAAAAATCAACCTCCCGATAGGGCTGGGCTGACCA
AAAATATACTGGGTTTCTGTTTCTTTCTGATCATTCTTACAAGTTATACTCTTATTTGGAAGGCCCT
AAAGAAGGCTTATGAAATTCAGAAGAACAACCAAGAAATGATGATATTTTTAAGATAATTATGGCAATT
GTGCTTTTCTTTTCTTTCTGGATTCCCACCAATATCACTTTTCTGGATGATTGATTCAACTAG
GCATCATACGTGACTGTAGAATTGCAGATATTGTGGACACGGCCATGCCTATCACCATTTGTATAGCTTA
TTTTAACAAATGCCTGAATCCTCTTTTTATGGCTTTCTGGGAAAAAATTTAAAAGATATTTTCTCCAG
CTTCTAAAATATATTCCCAAAAGCCAAATCCCACTCAAACCTTTCAACAAAAATGAGCAGCCTTCTCT
ACCGCCCTCAGATAATGTAAGCTCATCCACCAAGAAGCCTGCACCATGTTTTGAGGTTGAGTGA
```



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**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_031850 unedited  
 NGGGTCANAATTTGTATACGACTCATATAGGCGGCCGCGNAATTCGCACCAGGCAGCAGC  
 GAGTGACAGGACGTCTGGACCGGCGCGCCGCTAGCAGCTCTGCCGGGCCGCGCGGTGAT  
 CGATGGGGAGCGGCTGGAGCGGACCCAGCGAGTGAGGGCGCACAGCCGGGACGCCGAGGC  
 GGGCGGGGAGACCCGACAGCGCAGCCGCCCTCGGCGGGACGTGACGCAGCGCCCG  
 GGGCGCGGTTTGATATTTGACAAATTGATCTAAAATGGCTGGGTTTTTATCTGAATAAC  
 TCACTGATGCCATCCCAGAAAAGTCGGCACCAGGTGATTTTGATATAGTGTTTGCAACAAA  
 TTCGACCCAGGTGATCAAATGATTCTCAACTCTTCTACTGAAGATGGTATTTAAAAGAAT  
 CCAAGATGATTGTCCCAAAGCTGGAAGGCATAATTACATATTTGTCATGATTCCTACTTT  
 ATACAGTATCATCTTTGTGGTGGGAATATTTGAAAACAGCTTGGTGGTATAGTCATTTA  
 CTTTTATGAAGCTGAAGACTGTGGCCAGTGTCTTTCTTTTGAATTTAGCACTGGCTGA  
 CTTATGCTTTTTACTGACTTTGCCACTATGGGCTGTCTACACAGCTATGGAATACCGCTG  
 GCCCTTTGGCAATTACCTATGTAAGATTGCTTCAGCCAGCGTCAGTTTCAACCTGTACGC  
 TAGTGTGTTTCTACTCACGTGTCTCAGCATTGATCGATACCTGGCTATTGTTACCCCAAT  
 GAAGTCCCGCCTTCGACGCACAATGCTTGTAGCCAAAAGTCACCTGCATCATCTTTGGCT  
 GCTGGCAGGCTTGGCCAGTTTGCCAGCTATNATCCATCGNAATGTATTTTTCATTGAGAA  
 CCAATATTACAGTTC

**3' Read Nucleotide Sequence:**

>OriGene 3' read for NM\_031850 unedited  
 TTCTATCGGGTCTTTATCTGATTCGCTTCGATCGCGGCCGAATCTAAGAATCGGAAAAA  
 AAAAAAAAAAAAAAAAAAACAACCTGGAAATAAACCCACACCCACACCCTAGAGGCTAACATC  
 AACCCCTGCCAGACCCCTTTTTATATTTACAGCAGTTTTTGTGCTCTAGACACACACAC  
 ACATATATTGTGTAGAAAATATACCCCTTTTAAACAGGAAGGCATACTTTTATGATATA  
 TAATTCCTTTTACCACAACTATATACACTTCTCAGATATTAATCAAACCTAATACTACTA  
 GGAAGACACTACTACTTTGGGACCAGTGCAGCACCTTTACAAGTAGTTAACTTTTATATG  
 TGACTTTAGTAACACCATTATACAAATAAGCCATCTTACGGGCATTGTTTTGGCAGTGTA  
 AACCTATAAGACACAGGTTTGAATTTACAAAAAGATCTGCAACTTGACGACTACTGCTT  
 AACATATCTTTGTACAAAATGTGCAGTACCAGGTGCAAGTGTAGCACAGTTGCTAATAGC  
 TGAAAACCGGCACGAAAACCTTTACTGCCCTTTGGAAACTGGACAGAACAATCTGGAACCT  
 TCATCTCCTGTTGCTCCTCTAACGATTTAATATATTCTAAATACCTTTTATGTGGAATA  
 AAAAAAACAGGACAAAAGCGGCTAGGGGAGATTCCTTTTTCTGTCAGTTAAATTTTTCA  
 AATCAACAATTCNTTCGAGTTTCTGACTTTGTTCTTTCGAACAGCCGTCATCTGTCTATGG  
 CAATGGGGGCTTTTCTTTTGCCTTGTGCAAAGGAAAGAAAGCTTTTGTCAAACCTTTT  
 AAAAATT

**Restriction Sites:**

NotI-NotI

**ACCN:**

NM\_031850

**Insert Size:**

2650 bp

<b>OTI Disclaimer:</b>	<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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> 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. <a href="#">More info</a></p>
<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_031850.1</a> , <a href="#">NP_114038.1</a>
<b>RefSeq Size:</b>	2405 bp
<b>RefSeq ORF:</b>	1080 bp
<b>Locus ID:</b>	185
<b>UniProt ID:</b>	<a href="#">P30556</a>
<b>Cytogenetics:</b>	3q24
<b>Domains:</b>	7tm_1
<b>Protein Families:</b>	Druggable Genome, GPCR, Transmembrane
<b>Protein Pathways:</b>	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 (4), also known as pC3 or hAT1R-D, has an additional 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.