

## Product datasheet for **SC315539**

### Constitutive androstane receptor (NR1I3) (NM\_001077480) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Constitutive androstane receptor (NR1I3) (NM_001077480) Human Untagged Clone
Tag:	Tag Free
Symbol:	Constitutive androstane receptor
Synonyms:	CAR; CAR1; MB67
Mammalian Cell Selection:	Neomycin
Vector:	<u>PCMV6-Neo</u>
E. coli Selection:	Ampicillin (100 ug/mL)

**Fully Sequenced ORF:** >OriGene sequence for NM\_001077480 edited  
 TAACTCCAATCACTGGCAACTCCTGAGATCAGAGGAAAACCAACAGCGTGGGAGTTT  
 GGGGAGAGGCATTCCATACCAGATTCTGTGGCCTGCAGGTGACATGCTGCCTAAGAGAAG  
 CAGGAGTCTGTGACAGCCACCCCAACACGTGACGTCATGCCAGTAGGGAAGATGAGCTG  
 AGGAACTGTGTGGTATGTGGGGACCAAGCCACAGGCTACCACTTTAATGCGCTGACTTGT  
 GAGGGCTGCAAGGGTTTCTTCAGGAGAACAGTCAGCAAAAGCATTGGTCCCACCTGCCCC  
 TTTGCTGGAAGCTGTGAAGTCAAGACTCAGAGGCCCACTGCCAGCCTGCAGGTTG  
 CAGAAGTGCTTAGATGCTGGCATGAGGAAAGACATGATACTGTCGGCAGAAGCCCTGGCA  
 TTGCGGCGAGCAAAGCAGGCCACGGCGGGCACAGCAAACACCTGTGCAACTGAGTAAG  
 GAGCAAGAAGAGCTGATCCGGACACTCCTGGGGGCCACACCCGCCACATGGGCACCATG  
 TTTGAACAGTTTGTGAGTTTAGGCCTCCAGCTCATCTGTTCCATCACCAGCCCTTG  
 CCCACCTGGCCCTGTGCTGCCTCTGGTCACACACTTCGAGACATCAACACTTTCATG  
 GACTGCAAGTCAAGTTTACTAAGGACCTGCCTGTCTTCCGTTCCCTGCCCATTTGAA  
 GACCAGATCTCCCTTCTCAAGGGAGCAGCTGTGGAAATCTGTCACATCGTACTCAATACC  
 ACTTTCTGTCTCCAAACAAAACTTCTCTGCGGGCCTCTTCGCTACACAATTGAAGAT  
 GGAGCCCGTGTATCTCCACAGTGGGGTTCCAGGTAGAGTTTTTGGAGTTGCTTTTAC  
 TTCCATGGAACACTACGAAAACAGCTCCAAGAGCCTGAGTATGTGCTCTTGGCTGCC  
 ATGGCCCTCTTCTCCTGACCGACCTGGAGTTACCCAGAGAGATGAGATTGATCAGCTG  
 CAAGAGGAGATGGCACTGACTCTGCAAAGCTACATCAAGGGCCAGCAGCGAAGGCCCGG  
 GATCGGTTTCTGTATGCGAAGTTGCTAGGCCTGCTGGCTGAGCTCCGGAGCATTAAATGAG  
 GCCTACGGGTACCAAATCCAGCACATCCAGGGCCTGTCTGCCATGATGCCGCTGTCCAG  
 GAGATCTGCAGCTGAGGCCATGCTCACTTCTTCCCAGCTCACCTGGAACACCTGGAT  
 ACACTGGAGTGGGAAAATGCTGGGACCAAAGATTGGGCCGGTTCAAAGGGAGCCCACTG  
 GT

**Restriction Sites:** Please inquire



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<b>ACCN:</b>	NM_001077480
<b>Insert Size:</b>	1300 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>OTI Annotation:</b>	The ORF of this clone has been fully sequenced and found to be a perfect match to NM_001077480.1.
<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_001077480.1</a> , <a href="#">NP_001070948.1</a>
<b>RefSeq Size:</b>	1393 bp
<b>RefSeq ORF:</b>	1059 bp
<b>Locus ID:</b>	9970
<b>UniProt ID:</b>	<a href="#">Q14994</a>
<b>Cytogenetics:</b>	1q23.3
<b>Protein Families:</b>	Druggable Genome, Nuclear Hormone Receptor, Transcription Factors

**Gene Summary:**

This gene encodes a member of the nuclear receptor superfamily, and is a key regulator of xenobiotic and endobiotic metabolism. The protein binds to DNA as a monomer or a heterodimer with the retinoid X receptor and regulates the transcription of target genes involved in drug metabolism and bilirubin clearance, such as cytochrome P450 family members. Unlike most nuclear receptors, this transcriptional regulator is constitutively active in the absence of ligand but is regulated by both agonists and inverse agonists. Ligand binding results in translocation of this protein to the nucleus, where it activates or represses target gene transcription. These ligands include bilirubin, a variety of foreign compounds, steroid hormones, and prescription drugs. In addition to drug metabolism, the CAR protein is also reported to regulate genes involved in glucose metabolism, lipid metabolism, cell proliferation, and circadian clock regulation. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2020]

Transcript Variant: This variant (2) uses an alternate splice site in the 3' coding region, compared to variant 1. The resulting protein (isoform 2) is shorter than isoform 1.