

## Product datasheet for **RG213453**

### Constitutive androstane receptor (NR1I3) (NM\_001077473) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Constitutive androstane receptor (NR1I3) (NM_001077473) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Constitutive androstane receptor
Synonyms:	CAR; CAR1; MB67
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG213453 representing NM_001077473 Red=Cloning site Blue=ORF Green=Tags(s)

TTTGTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGC**

ATGCTGCCTAAGAGAAGCAGGAGAACAGTCAGCAAAAGCATTGGTCCCACCTGCCCTTTGCTGGAAGCT  
GTGAAGTCAGCAAGACTCAGAGGCGCCACTGCCAGCCTGCAGTTGCAGAAGTGCTTAGATGCTGGCAT  
GAGGAAAGACATGATACTGTCGGCAGAAGCCCTGGCATTGCGGCGAGCAAAGCAGGCCACGCGCGGGCA  
CAGCAAAACCTGTGCAACTGAGTAAGGAGCAAGAAGAGCTGATCCGGACACTCCTGGGGGCCACACCC  
GCCACATGGGCACCATGTTTGAACAGTTTGTGCAGTTTAGGCCTCCAGCTCATCTGTTTCATCCATCACC  
GCCCTTGCCACCTGGCCCTGTGCTGCCTCTGGTCACACACTTCGCAGACATCAACACTTTCATGGTA  
CTGCAAGTCATCAAGTTTACTAAGGACCTGCCCGTCTTCCGTTCCCTGCCATTGAAGACCAGATCTCCC  
TTCTCAAGGGAGCAGCTGTGAAATCTGTACATCGTACTCAATACCACTTTCTGTCTCCAAACACAAAA  
CTTCTCTGCGGGCCTCTTCGCTACACAATTGAAGATGGAGCCCGTGTATCTCCACAGTGGGGTTCCAG  
GTAGAGTTTTTGGAGTTGCTCTTCACTTCCATGGAACACTACGAAAACCTGCAGCTCCAAGAGCCTGAGT  
ATGTGCTCTTGGCTGCCATGGCCCTCTTCTCTCCTGCTCCCTATCTTACAGACCGACCTGGAGTTACCCA  
GAGAGATGAGATTGATCAGCTGCAAGAGGAGATGGCACTGACTCTGCAAAGCTACATCAAGGGCCAGCAG  
CGAAGGCCCGGGATCGCTCACCTGGAACACCCCTGGATACACTGGAGTGGGAAATGCTGGGACCAAGA  
TTGGGCCGGGTTCAAAGGAGCCAGTGTTGCAA

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG213453 representing NM\_001077473  
 Red=Cloning site Green=Tags(s)

MLPKRSRRTVSKSIGPTCPFAGSCEVSKTQRRHCPACRLQKCLDAGMRKDMILSAEALALRRAKQAQRRA  
 QQTPVQLSKEQEELIRTLGATHRMGMTFEQFVQFRPPAHLFIHHQPLPTLAPVLPVTHFADINTFMV  
 LQVIKFTKDLVPFRSLPIEDQISLLKGAAVEICHIVLNTTFCLQTQNFCLGPLYTIEDGARVSPTVGFQ  
 VEFLELLFHFHGTLRKLQLQEPEYVLLAAMALFSPAPYLTDPRPGVTQRDEIDQLQEEMALTLQSYIKGQQ  
 RRPRDRSPGTPWIHWSGKMLGPKIGPGSKGAQWLQ

TRTRPLE – GFP Tag – V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001077473

**ORF Size:** 945 bp

**OTI Disclaimer:** 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](#)

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**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\\_001077473.3](#)

**RefSeq Size:** 1114 bp

**RefSeq ORF:** 948 bp

**Locus ID:** 9970

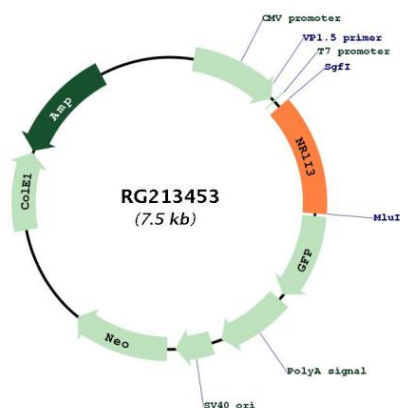
**UniProt ID:** [Q14994](#)

**Cytogenetics:** 1q23.3

**Protein Families:** 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]

## Product images:



Circular map for RG213453