

## Product datasheet for RC216983

### Constitutive androstane receptor (NR1I3) (NM\_001077478) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Constitutive androstane receptor (NR1I3) (NM_001077478) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Constitutive androstane receptor
Synonyms:	CAR; CAR1; MB67
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC216983 representing NM_001077478 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCCAGTAGGGAAGATGAGCTGAGGAAGTGTGTGGTATGTGGGGACCAAGCCACAGGCTACCACTTTA  
ATGCGCTGACTTGTGAGGGCTGCAAGGGTTTCTCAGGAGAACAGTCAGCAAAGCATTGGTCCCACCTG  
CCCCTTTGCTGGAAGCTGTGAAGTCAGCAAGACTCAGAGGCGCCACTGCCAGCCTGCAGGTTGCAGAAG  
TGCTTAGATGCTGGCATGAGGAAAGACATGATACTGTCCGAGCAAGCCCTGGCATTGCGGCGAGCAAAGC  
AGGCCACAGCGGGCCACAGCAAACACCTGTGCAACTGAGTAAGGAGCAAGAAGAGCTGATCCGGACACT  
CCTGGGGGCCACACCCGCCACATGGGCACCATGTTTGAACAGTTTGTGCAAGTTTAGGCCTCCAGCTCAT  
CTGTTTCCATCCATCACCAGCCCTTGGCCACCCTGGCCCTGTGCTGCCTCTGGTCACACACTTCGAGACA  
TCAACTTTTCAAGTCAAGTCAAGTTTACTAAGGACCTGCCCGTCTTCCGTTCCCTGCCAT  
TGAAGACCAGATCTCCCTTCTCAAGGGAGCAGCTGTGAAATCTGTACATCGTACTCAATACCCTTTC  
TGTCTCCAACACAAAATTCTCTGCGGGCTCTTCGCTACACAATTGAAGATGGAGCCCGTGTATCTC  
CCACAGTGGGGTCCAGGTAGAGTTTTTGGAGTTGCTCTTCACTTCCATGGAACACTACGAAAAGTCA  
GCTCCAAGAGCCTGAGTATGTGCTCTTGGCTGCCATGGCCCTCTCTCTCTGACCGACCTGGAGTTACC  
CAGAGAGATGAGATTGATCAGCTGCAAGAGGAGATGGCACTGACTCTGCAAAGCTACATCAAGGGCCAGC  
AGCGAAGGCCCGGATCGCTCACCTGGAACACCCTGGATACACTGGAGTGGGAAAATGCTGGGACCAAA  
GATTGGCCGGTTCAAAGGGAGCCAGTGGTTGCAA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC216983 representing NM\_001077478  
Red=Cloning site Green=Tags(s)

MASREDELRNVCVCGDQATGYHFNALTCEGCKGFFRRTVSKSIGPTCPFAGSCEVSKTQRRHCPACRLQK  
 CLDAGMRKDMILSAEALALRRAKQAQRRRAQQTVPVQLSKEQEELIRTLLGAHTRHMGTMFEQFVQFRPPAH  
 LFIHHQPLPTLAPVLPVTHFADINTFMVLQVIKFTKDLPVFVRSPLIEDQISLLKGAAVEICHIVLNTTF  
 CLQTQNFLLCGPLRYTIEDGARVSPTVGFQVEFLELLFHFHGTLRKLQLQEPEYVLLAAMALFSPDRPGVT  
 QRDEIDQLQEEMALTLQSYIKGQRRPRDRSPGTPWIHWSGKMLGPKIGPGSKGAQWLQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk8053\\_c04.zip](https://cdn.origene.com/chromatograms/mk8053_c04.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001077478

**ORF Size:** 1017 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\\_001077478.3](#)

**RefSeq Size:** 1239 bp

**RefSeq ORF:** 1020 bp

**Locus ID:** 9970

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

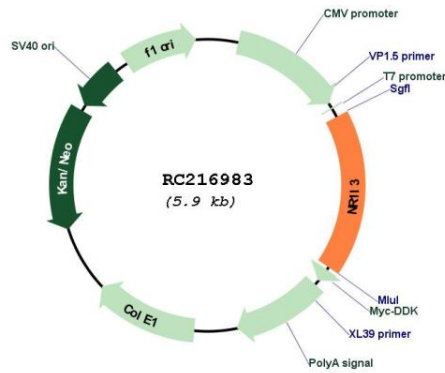
**Cytogenetics:** 1q23.3

**Protein Families:** Druggable Genome, Nuclear Hormone Receptor, Transcription Factors

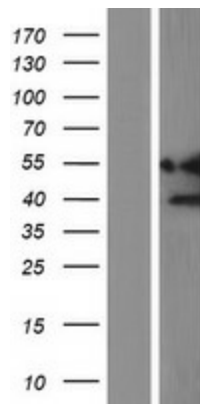
**MW:** 38.1 kDa

**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 RC216983



Western blot validation of overexpression lysate (Cat# [LY421433]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC216983 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).