

## Product datasheet for **RC224092**

### **CARS1 (NM\_001014437) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	CARS1 (NM_001014437) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CARS1
Synonyms:	CARS; CYSRS; MCDDDBH; MDBH; MGC:11246
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC224092 representing NM\_001014437  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

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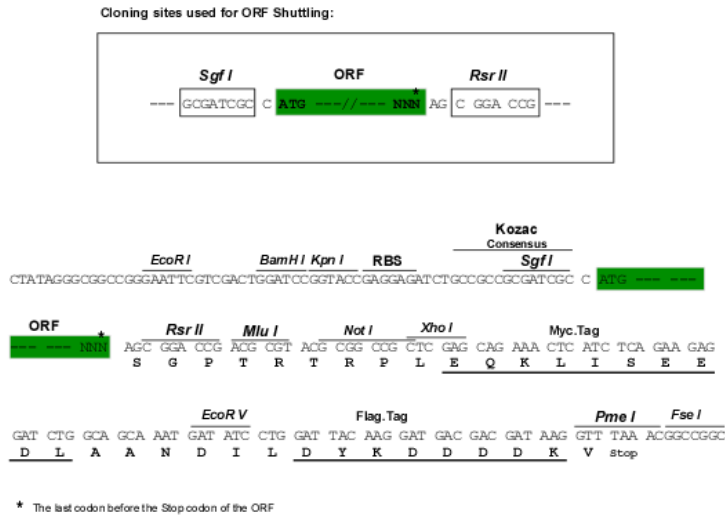
Protein Sequence: >RC224092 representing NM\_001014437  
Red=Cloning site Green=Tags(s)

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SKSLKNF ITIKDALKKHSARQLRLAFLMHSWKDTLDYSSNTMESALQYEKFLNEFFLNVDILRAPVDIT
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```

SGP TRRRLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: [https://cdn.origene.com/chromatograms/mk8044\\_d02.zip](https://cdn.origene.com/chromatograms/mk8044_d02.zip)

Restriction Sites: SgfI-RsrII

**Cloning Scheme:**


**ACCN:** NM\_001014437

**ORF Size:** 2493 bp

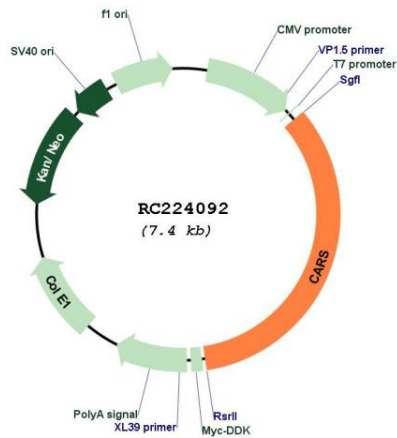
**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone 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.

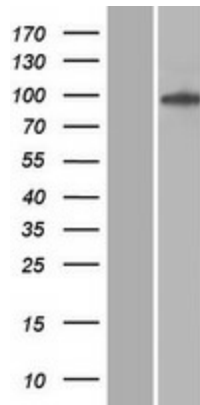
**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

<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_001014437.3</a>
<b>RefSeq Size:</b>	2767 bp
<b>RefSeq ORF:</b>	2496 bp
<b>Locus ID:</b>	833
<b>UniProt ID:</b>	<a href="#">P49589</a>
<b>Cytogenetics:</b>	11p15.4
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Aminoacyl-tRNA biosynthesis
<b>MW:</b>	94.5 kDa
<b>Gene Summary:</b>	<p>This gene encodes a class 1 aminoacyl-tRNA synthetase, cysteinyl-tRNA synthetase. Each of the twenty aminoacyl-tRNA synthetases catalyzes the aminoacylation of a specific tRNA or tRNA isoaccepting family with the cognate amino acid. This gene is one of several located near the imprinted gene domain on chromosome 11p15.5, an important tumor-suppressor gene region. Alterations in this region have been associated with Beckwith-Wiedemann syndrome, Wilms tumor, rhabdomyosarcoma, adrenocortical carcinoma, and lung, ovarian and breast cancers. Alternative splicing of this gene results in multiple transcript variants. [provided by RefSeq, Aug 2010]</p>

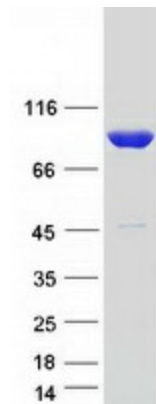
Product images:



Circular map for RC224092



Western blot validation of overexpression lysate (Cat# [LY423062]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC224092 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CARS protein (Cat# [TP324092]). The protein was produced from HEK293T cells transfected with CARS cDNA clone (Cat# RC224092) using MegaTran 2.0 (Cat# [TT210002]).