

Product datasheet for **RG224092**

CARS1 (NM_001014437) Human Tagged ORF Clone

Product data:

| | |
|---------------------------|---------------------------------------------|
| Product Type: | Expression Plasmids |
| Product Name: | CARS1 (NM_001014437) Human Tagged ORF Clone |
| Tag: | TurboGFP |
| Symbol: | CARS1 |
| Synonyms: | CARS; CYSRS; MCDDDBH; MDBH; MGC:11246 |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-AC-GFP (PS100010) |
| E. coli Selection: | Ampicillin (100 ug/mL) |



[View online »](#)

ORF Nucleotide
Sequence:

>RG224092 representing NM_001014437
Red=Cloning site Blue=ORF Green=Tags(s)

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GCC**CGATCGCC**

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AG**CGGACCG**ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG224092 representing NM_001014437
 Red=Cloning site Green=Tags(s)

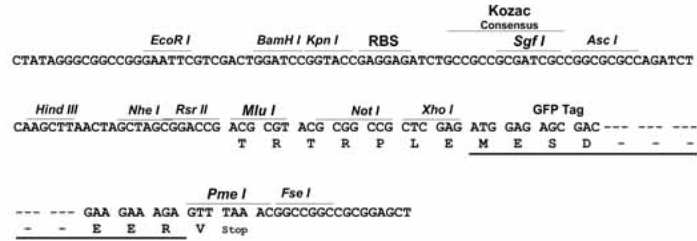
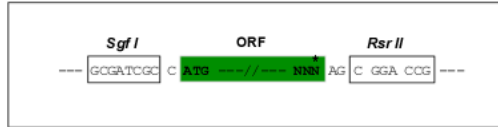
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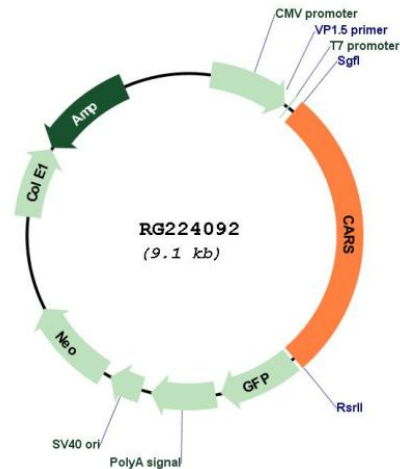
SGPTRRRLE - GFP Tag - V

Restriction Sites: Sgfl-RsrII

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:


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).

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_001014437.3](#)

RefSeq Size: 2767 bp

RefSeq ORF: 2496 bp

Locus ID: 833

UniProt ID: [P49589](#)

Cytogenetics: 11p15.4

Protein Families: Druggable Genome

Protein Pathways: Aminoacyl-tRNA biosynthesis

Gene Summary: 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]