

Product datasheet for **RC203400**

CARS2 (NM_024537) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CARS2 (NM_024537) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CARS2
Synonyms:	COXPD27; cysRS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC203400 representing NM_024537
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGTTGAGGACTACGCGCGGCCAGGCCTGGGCCCCCGTCTCCAGGCCGCGTGGCCCTGGGCGGG
 CTGGGTGGCACTGGCCTGCGGGCCGGCGGCGAGCGGGGGCGCGGGCGGCCTGGCTGCAGCCACGGG
 CCGGGAGACGGGTGTGCAGGTGTACAACAGCCTCACCGGAGGAAGGAACCCCTAATCGTGGCGCACGCC
 GAAGCCGCTCCTGGTATAGCTGTGGACCAACTGTATATGATCATGCGCACCTTGCCATGCTTGCTCAT
 ATGTTAGATTTGATATCATTGGAAGGATCTCAACCAAGGTTTTGGATGCAGCATAGTCATGGTATGGG
 TATTACAGATGTAGATGATAAAATCATCAAAGAGCCAATGAGATGAATATTTCCCCCGCTTCCCTCGCC
 AGTCTTTATGAGGAAGACTTCAAGCAGGACATGGCAGCCCTGAAGTTCTCCACCCACGGTGTACCTGA
 GGGTAACCGAAAAATTCCTCAGATAATTTCTTTCATTGAAGGAATCATTGCTCGTGGGAACGCTTATTC
 AACGGCAAAGGCAATGTCTACTTCGATCTGAAGTCTAGAGGAGACAAGTATGGCAAATTTGGTCGGCGTG
 GTCCTTGGTCCAGTCCGAGAGCCAGCGGACTCTGACAAGCGTCATGCCAGTGACTTCGCCCTGTGGAAGG
 CGGCCAAACCCAGGAGGTGTTCTGGGCCTCTCCCTGGGACCCGGGAGGCCGGGCTGGCACATCGAGTG
 CTCTGCCATCGCTAGTATGGTATTTGGAAGTCAACTGGATATCCATTCAGGTGGGATAGATTTAGCTTTT
 CCACATCATGAAAACGAAATTCACAGTGCAGAGTCTTTCATCAGTGCAGCAGTGGGAAATATTTTC
 TGCATTCTGGGCATTTGCACGCCAAAGGCAAAGAAAGAAAAATGTCCAAATCATTAAAGAACTACATTAC
 TATTAAGGACTTTCTGAAGACCTTTCCCCCGATGTCTCCGGTCTTCTGCCTGCGGAGCAGCTACCGC
 TCAGCCATCGACTACAGTGACAGCGCCATGCTCCAAGCTCAGCAGCTGCTCTGGGGCTGGGCTCTTTCC
 TGGAGGACGACGTGCCTACATGAAGGGGACGCTGGCCTGCGGCTCCGTCAGGGAACGATGCTGTGGA
 GAGGCTCTCCAGCACAAGAGGGCCGTGAAGGCGGCTTGGCAGATGATTTTGACACACCCAGGTTGGTT
 GATGCCATCCTGGGCCTTGCACACCAGGGAATGGACAGCTCAGGGCGTCCCTGAAGGAACCTGAAGGGC
 CGAGAAGTCTGTGTGTTGGTGCCATCATCTTACTTTGAACAGTTTTTTGAAACTGTTGGAATTTT
 TCTGGCAAATCAACAGTACGTTTCAGGAGACGGCAGCGAGGCTACCTTGCATGGTGTGGTGGACGAGCTG
 GTGCGGTTCCGGCAGAAGGTCGGCAGTTTGGCTGGCCATGCCCGAGGCCACGGGGACGCCCGCGCGC
 AGCAGCTCTAGAAAGGCAGCCCTGCTGGAAGCATGCGACACCTGCGCCGGGGCTGACTGCCACGG
 CATCAACATCAAGGACAGAAGCAGTACAACATCCAGTGGGAACCTGCTGGATCAAAGGACAAAAGACCAA
 AAATCAGCGGGC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC203400 representing NM_024537
 Red=Cloning site Green=Tags(s)

MLRTRTRGPGPLGPPLLQAALGLGRAGWHWPAGRAASGGRGRAWLQPTGRETGVQVYNSLTGRKEPLIVAHA
 EAASWYSCGPTVYDHAHLGHACSYVRFDIIRRILTKVFGCSIVMVMGITDVEDDKI IKRANEMNISPASLA
 SLYEEDFKQDMAALKVLPPTVYLRVTENIPQIIISFIEGIIARGNAYSTAKGNVYFDLKSARGDYKGLVGV
 VPGPVGEPADSDKRHASDFALWKAAPQEVFWASPWGPRGPGWHIECSAIASMVFGSQLDIHSGGIDLAF
 PHHENEIAQCEVFHQCEQWGNFYFLHSGHLHAKGKEEKMSKSLKNYITIKDFLKTFFSPDVFRFFCLRSSYR
 SAIDYSDSAMLQAQQLLLGLGSFLEDARAYMKQLACGSVREAMLWERLSSTKRAVKAALADDFDTPRVV
 DAILGLAHHGNGQLRASLKEPEGPRSPAVFGAIIISYFEQFFETVGI SLANQQYVSGDGSEATLHGVDDEL
 VRFQRQVRFALAMPEATGDARRQQLLERQPLLEACDTRLRRLTAHGINIKDRSSTTSTWELLDQRTKDG
 KSAG

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk8112_f03.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_024537

ORF Size: 1692 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_024537.4](#)

RefSeq Size: 1865 bp

RefSeq ORF: 1695 bp

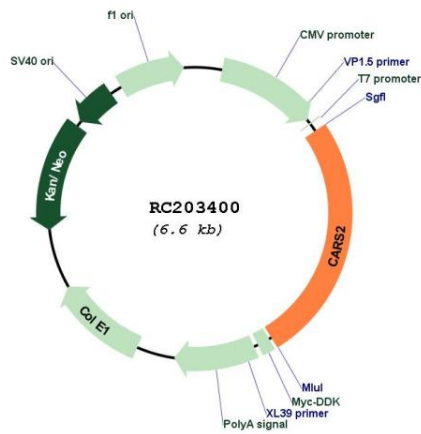
Locus ID: 79587

UniProt ID: [Q9HA77](#)

Cytogenetics: 13q34

Domains:	tRNA-synt_1e
Protein Families:	Druggable Genome
Protein Pathways:	Aminoacyl-tRNA biosynthesis
MW:	62.2 kDa
Gene Summary:	This gene encodes a putative member of the class I family of aminoacyl-tRNA synthetases. These enzymes play a critical role in protein biosynthesis by charging tRNAs with their cognate amino acids. This protein is encoded by the nuclear genome but is likely to be imported to the mitochondrion where it is thought to catalyze the ligation of cysteine to tRNA molecules. A splice-site mutation in this gene has been associated with a novel progressive myoclonic epilepsy disease with similar symptoms to MERRF syndrome. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jun 2017]

Product images:



Circular map for RC203400