

Product datasheet for **RG203400**

CARS2 (NM_024537) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CARS2 (NM_024537) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	CARS2
Synonyms:	COXPD27; cysRS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RG203400 representing NM_024537
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGTTGAGGACTACGCGCGGCCAGGCCTGGGCCCCCGTGCTCCAGGCCGCGCTGGCCCTGGGCGGG
 CTGGGTGGCACTGGCCTGCGGGCGGGCGGCGAGCGGGGGCGGGCGGGCCTGGCTGCAGCCACGGG
 CCGGGAGACGGGTGTGCAGGTGTACAACAGCCTCACCGGAGGAAGGAACCCCTAATCGTGGCGCACGCC
 GAAGCCGCTCCTGGTATAGCTGTGGACCAACTGTATATGATCATGCGCACCTTGCCATGCTTGCTCAT
 ATGTTAGATTTGATATCATTGCAAGGATCTCAACCAAGTTTTTGGATGCAGCATAGTCATGGTATGGG
 TATTACAGATGTAGATGATAAAATCATCAAAGAGCCAATGAGATGAATATTTCCCCCGCTTCCCTCGCC
 AGTCTTTATGAGGAAGACTTCAAGCAGGACATGGCAGCCCTGAAGTTCTCCACCCACGGTGTACCTGA
 GGGTAACCGAAAAATTCCTCAGATAATTTCTTTCATTGAAGGAATCATTGCTCGTGGGAACGCTTATTC
 AACGGCAAAGGCAATGTCTACTTCGATCTGAAGTCTAGAGGAGACAAGTATGGCAAATTTGGTCGGCGTG
 GTCCTTGGTCCAGTCGGAGAGCCAGCGGACTCTGACAAGCGTCATGCCAGTACTCGCCCTGTGGAAGG
 CGGCCAAACCCAGGAGGTGTTCTGGGCCTCTCCCTGGGACCCGGGAGGCCGGGCTGGCACATCGAGTG
 CTCTGCCATCGCTAGTATGGTATTTGGAAGTCAACTGGATATCCATTCAGGTGGGATAGATTTAGCTTTT
 CCACATCATGAAAACGAAATTCACAGTGCAGAGTCTTTCATCAGTGCAGCAGTGGGAAATATTTTC
 TGCATTCTGGGCATTTGCACGCCAAAGGCAAAGAAAGAAAAATGTCCAAATCATTAAAGAACTACATTAC
 TATTAAGGACTTTCTGAAGACCTTTTCCCCGATGTCTCCGGTCTTCTGCCTGCGGAGCAGCTACCGC
 TCAGCCATCGACTACAGTGACAGCGCCATGCTCCAAGCTCAGCAGCTGCTCTGGGGCTGGGCTCTTCC
 TGGAGGACGACGTGCCTACATGAAGGGGACGCTGGCCTGCGGCTCCGTCAGGGAAGCGATGCTGTGGGA
 GAGGCTCTCCAGCACCAAGAGGGCCGTGAAGGCGGCCCTTGGCAGATGATTTTGACACACCCAGGGTGGTT
 GATGCCATCCTGGGCCTTGCACACCACGGGAATGGACAGCTCAGGGCGTCCCTGAAGGAACCTGAAGGGC
 CGAGAAGTCTGTGTGTTGGTGCCATCATCTTACTTTGAACAGTTTTTTGAAACTGTTGGAATTTT
 TCTGGCAAATCAACAGTACGTTTCAGGAGACGGCAGCGAGGCTACCTTGCATGGTGTGGTGGACGAGCTG
 GTGCGGTTCCGGCAGAAGGTCGGCAGTTTGGCTGGCCATGCCCGAGGCCACGGGGACGCCCGCGGGC
 AGCAGCTCTAGAAAGGCAGCCCTGCTGGAAGCATGCGACACCTGCGCCGGGGCTGACTGCCACGG
 CATCAACATCAAGGACAGAAGCAGTACAACATCCAGTGGGAACCTGCTGGATCAAAGGACAAAAGACCAA
 AAATCAGCGGGC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG203400 representing NM_024537
 Red=Cloning site Green=Tags(s)

MLRTRRGPGLGPPLLQAALGLGRAGWHWPAGRAASGGRGRAWLQPTGRETGVQVYNSLTGRKEPLIVAHA
 EAASWYSCGPTVYDHAHLGHACSYVRFDIIRRILTKVFGCSIVMVMGITDVDDKI IKRANEMNISPASLA
 SLYEEDFKQDMAALKVLPPTVYLRVTENIPQIIISFIEGIIARGNAYSTAKGNVYFDLKS RGDKYGKLVGV
 VPGPVGEPADSDKRHASDFALWKAAPQEVFWASPWGPRPGWHIECSAIASMVFGSQLDIHSGGIDLAF
 PHHENEIAQCEVFHQCEQWGNFLHSGHLHAKGKEEKMSKSLKNYITIKDFLKTFS PDVFRFFCLRSSYR
 SAIDYSDSAMLQAQQLLLGLGSFLEDARAYMKQLACGSVREAMLWERL SSKRAVKAALADDFDTPRVV
 DAILGLAHHGNGQLRASLKEPEGPRSPAVFGAII SYFEQFFETVGI SLANQQYVSGDGEATLHGVDDEL
 VRFQRQVRFALAMPEATGDARRQQLLERQPLLEACDTRLRRLTAHGINIKDRSSTSTWELL DQRTKDQ
 KSAG

TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

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

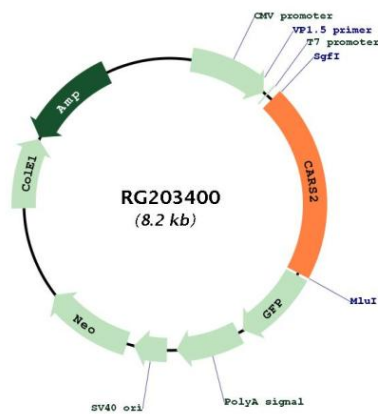
Domains: tRNA-synt_1e

Protein Families: Druggable Genome

Protein Pathways: Aminoacyl-tRNA biosynthesis

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 RG203400