

Product datasheet for **RC202630**

CARS1 (NM_001751) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CARS1 (NM_001751) 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:

>RC202630 representing NM_001751
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCAGATTCTCCGGGCAGCAGGGCAAAGGCCGGCGTGTGCAGCCCCAGTGGTCCCCTCTGCTGGGA
 CCCAGCCATGCAGACTCCACCTTTACAACAGCCTCACCAGGAACAAGGAAGTGTTCATACCTCAAGATGG
 GAAAAAGGTGACGTGGTATTGCTGTGGGCCAACCGTCTATGACGCATCTCACATGGGGCAGGCCAGGTCC
 TACATCTCTTTGATATCTTGAGAAGAGTGTGAAGGATTACTTCAAATTTGATGTCTTTTATTGCATGA
 ACATTACGGATATTGATGACAAGATCATCAAGAGGGCCCGGCAGAACCTGTTGAGCAGTATCGGGA
 GAAGAGGCCTGAAGCGGCACAGCTCTGGAGGATGTTGAGGCCCTGAAGCCATTTTCAGTAAATTA
 AATGAGACCACGGATCCCGATAAAAAGCAGATGCTCGAACGGATTCAGCACGCAGTGCAGCTTGCCACAG
 AGCCACTTGAGAAAGCTGTGCAGTCCAGACTCACGGGAGAGGAAGTCAACAGCTGTGTGGAGGTGTGCT
 GGAAGAAGCCAAGGATTTGCTCTGACTGGCTGGATTCTACACTGGCTGTGATGTCAGTACAATTCC
 ATCTTCTCCAAGCTGCCAAGTTCTGGAGGGGACTTCCACAGAGACATGGAAGCTCTGAATGTTCTCC
 CTCCAGATGTCTTAACCCGGGTTAGTGAGTATGTGCCAGAAATTGTGAATTTGTCCAGAAGATTGTGGA
 CAACGGTTACGGCTATGTCTCCAATGGGTCTGTCTACTTTGATACAGCGAAGTTTCTTACGCGAGAAG
 CACTCCTATGGGAAGCTGGTGCCTGAGGCCGTTGGAGATCAGAAAAGCCCTTCAAGAAGGGGAAGGTGACC
 TGAGCATCTCTGCAGACCGCCTGAGTGAGAAGCCTCTCCAACGACTTTGCCTTATGGAAGGCCTTAA
 GCCCGGAGAACCCTCTGGCCGTGCCCTTGGGAAAGGGTCGTCGGGCTGGCATATCGAGTGTCCGGCC
 ATGGCAGGCACCTCCTAGGGCTTCGATGGACATTCACGGAGGTGGGTCGACCTCCGGTCCCCCACC
 ATGACAATGAGCTGGCACAGTCGGAGGCCTACTTTGAAAACGACTGCTGGGTCAGGTACTTCTGCACAC
 AGGCCACCTGACCATTGCAGGCTGCAAAATGTCAAAGTCACTAAAAAATTCATCACCATTAAGATGCC
 TTGAAAAAGCACTCAGCACGGCAGTTGCGGCTGGCCTTCTCATGCACTCGTGGAAAGGACACCCTGGACT
 ACTCCAGCAACACCATGGAGTCAAGCCTTCAATATGAGAAGTTCTTGAATGAGTTTTTCTTAAATGTGAA
 AGATATCCTTCGCGCTCCTGTTGACATCACTGGTCAGTTTGAAGAAGTGGGGAGAAGAAGAAGCAGAAGT
 AATAAGAAGCTTTTATGACAAGAAGACAGCAATTCACAAAGCCCTCTGTGACAATGTTGACACCCGACCG
 TCATGGAAGAGATGCGGGCCTTGGTCAGTCACTCAACCTCTATATGGCAGCCCGAAAGCCGTGAGGAA
 GAGGCCCAACCAGGCTCTGCTGGAGAACATCGCCCTGTACCTCACCCATATGCTGAAGATCTTTGGGGCC
 GTAGAAGAGGACAGCTCCCTGGGATTCGGGTCGGAGGGCCTGGAACCAGCCTCAGTCTCGAGGCCACAG
 TCATGCCCTACCTTCAGGTGTTATCAGAATTCGAGAAGGAGTGCAGGAAGATTGCCCGAGAGCAAAAAGT
 CCCTGAGATTCTGCAGCTCAGCGATGCCCTGCGGGACAACATCCTGCCCGAGCTTGGGGTGCAGTTTGA
 GACCACGAAGGACTGCCACAGTGGTAAAAGTGGTAGACAGAAACACCTTATTAAGAGAGAGAGAAGAAA
 AGAGACGGGTTGAAGAGGAGAAGAGGAAGAAGAAGAGGAGGCGGCCCGGAGGAAACAGGAACAAGAAGC
 AGCAAAGCTGGCCAAGATGAAGATTCACCCAGTGAAGTGTCTTGTGAGAAACCGACAAATACTCCAAG
 TTTGATGAAAATGGTCTGCCACACATGACATGGAGGGCAAAGAGCTCAGCAAAGGGCAAGCCAAGAAGC
 TGAAGAAGCTCTTCGAGGCTCAGGAGAAGCTCTACAAGGAATATCTGCAGATGGCCAGAATGGAAGCTT
 CCAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC202630 representing NM_001751
 Red=Cloning site Green=Tags(s)

MADSSGQQGKGRVQPQWSPAGTQPCRLHLYNSLTRNKEVFIPODGKKVTWYCCGPTVYDASHMGHARS
 YISFDILRRVLKDYFKFDVYFCMNIIDDDKI IKRARQNHLFEQYREKRPEAAQLLEDVQAALKPF SVKL
 NETTDPKKQMLERI QHAVQLATEPLEKAVQSRLTGEEVNSCVELLEEAKDLLSDWLDSTL GCDVTDNS
 IFSKLPKFWEGDFHRDMEALNVLPPDVL TRVSEYVPEIVNFVQKIVDNGYGYVSNGSVYFD TAKFASSEK
 HSYGKLVPEAVGDQKALQEGEGLSISADRLSEKRSPNDFALWKASKPGEPSWPCPWGKGRPGWHIECSA
 MAGTLLGASMDIHGGGFDLRFPHHDNELAQSEAYFENDCWVRYFLHTGHLTIAGCKMSKSLKNFITIKDA
 LKKHSARQLRLAFLMHSWKD TLDYSSNTMESALQYEKFLNEFFLNVKDILRAPVDITGQFEKWGEEEAEL
 NKNFYDKKTAIHKALCDNVDRTRVMEEMRALVSQC�LYMAARKAVRKRPNQALLENIALYLTHMLKIFGA
 VEEDSSLGFPVGGPGTSLSEATVMPYLQVLSEFREGVRKIAREQVPEILQLSDALRDNILPELGVRFE
 DHEGLPTVVKL VDRNTLLKEREKRRVEEEKRKKKEEAARRKQEQA AKLAKMKIPPSEMFLSETDKYSK
 FDENGLPTHMEGKELSKGQAKKLLKLEFAQEKL YKEYLQMAQNGSFQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001751

ORF Size: 2244 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_001751.6](#)

RefSeq Size: 2550 bp

RefSeq ORF: 2247 bp

Locus ID: 833

UniProt ID: [P49589](#)

Cytogenetics: 11p15.4

Domains: tRNA-synt_1e

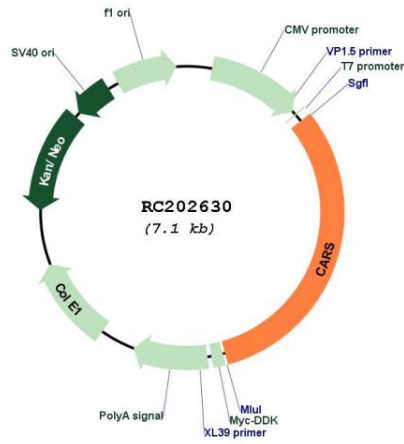
Protein Families: Druggable Genome

Protein Pathways: Aminoacyl-tRNA biosynthesis

MW: 85.5 kDa

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]

Product images:



Circular map for RC202630