

Product datasheet for **RG226041**

Lysyl tRNA synthetase (KARS) (NM_001130089) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Lysyl tRNA synthetase (KARS) (NM_001130089) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	KARS1
Synonyms:	CMTRIB; DEAPLE; DFNB89; KARS; KARS2; KRS; LEPID
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RG226041 representing NM_001130089
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGTTGACGCAAGCTGCTGTAAGGCTTGTAGGGGTCCCTGCGCAAACCTCCTGGCAGAGTGGGGTC
 ACAGGAACTGCGACTGGGTCAACTTGCTCTTTCACAGCGCCTACAAGGACAAGTCATTTTCTGATCA
 AAGAAGTGAGCTGAAGAGACGCCTGAAAGCTGAGAAGAAAGTAGCAGAGAAGGAGCCAAACAGAAAGAG
 CTCAGTGAGAAACAGCTAAGCCAAGCCACTGCTGCTGCCACCAACCACCACTGATAATGGTGTGGGT
 CTGAGGAAGAGAGCGTGGACCAATCAATACTACAAAATCCGCAGTCAAGCAATTCATCAGCTGAAGGT
 CAATGGGAAGACCCATACCCACACAAGTTCATGTAGACATCTCACTCACTGACTTCATCCAAAAATAT
 AGTCACCTGCAGCCTGGGATCACCTGACTGACATCACCTTAAGGTGGCAGGTAGGATCCATGCCAAA
 GAGCTTCTGGGGAAAGCTCATCTTCTATGATCTTCGAGGAGAGGGGGTGAAGTTGCAAGTCATGCCAA
 TTCCAGAAATTATAAATCAGAAGAAGATTTATTCATATTAATAACAACTGCGTCGGGGAGACATAATT
 GGAGTTACAGGGGAATCCTGGTAAAACCAAGAAGGGTGAGCTGAGCATCATTCCGTATGAGATCACACTGC
 TGCTCCCTGTTTGCATATGTTACCTCATCTTCACTTTGGCCTCAAGACAAGGAAACAAGGTATCGCCA
 GAGATACTGGACTTGATCCTGAATGACTTTGTGAGGCAGAAATTTATCATCCGCTCTAAGATCATCACA
 TATATAAGAAGTTTCTTAGATGAGCTGGGATTCCTAGAGATTGAAACTCCCATGATGAACATCATCCAG
 GGGGAGCCGTGGCCAAGCCTTTCATCACTTATCACAACGAGCTGGACATGAACCTATATATGAGAATTGC
 TCCAGAACTCTATCATAAGATGCTTGTGGTTGGTGGCATCGACCGGGTTTATGAAATTGGACGCCAGTTC
 CGGAATGAGGGGATTGATTTGACGCACAATCCTGAGTTCACCACCTGTGAGTTCTACATGGCCTATGCAG
 ACTATCACGATCTCATGAAAATCACGAGAAGATGGTTTCAGGGATGGTGAAGCATATTACAGGCCATTA
 CAAGGTCACCTACCACCCAGATGGCCAGAGGGCCAAGCCTACGATGTTGACTTACCCACCCCTTCCGG
 CGAATCAACATGGTAGAAGAGCTTGAGAAAGCCCTGGGGATGAAGCTGCCAGAAACGAACCTCTTTGAAA
 CTGAAGAAACTCGAAAATTTCTTGATGATATCTGTGTGGCAAAGCTGTTGAATGCCCTCCACCTCGGAC
 CACAGCCAGGCTCCTTGACAAGCTTGTGGGGAGTTCTGGAAGTGAAGTGCATCAATCCTACATTCATC
 TGTGATCACCCACAGATAATGAGCCCTTGGCTAAATGGCACCGCTCTAAAGAGGGTCTGACTGAGCGCT
 TTGAGCTGTTTGCATGAAGAAAGAGATATGCAATGCGTATACTGAGCTGAATGATCCCATGCGGCAGCG
 GCAGCTTTTTGAAGAACAGGCCAAGGCCAAGGCTGCAGGTGATGATGAGGCCATGTTATAGATGAAAAC
 TTCTGTACTGCCCTGGAATATGGGCTGCCCCCACAGCTGGCTGGGCATGGGCATTGATCGAGTCGCCA
 TGTTTCTCAGGACTCCAACAACATCAAGGAAGTACTTCTGTTTCTGCCATGAAACCCGAAGACAAGAA
 GGAGAATGTAGCAACCACTGATACACTGAAAAGCACAACAGTTGGCACTTCTGTC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG226041 representing NM_001130089
 Red=Cloning site Green=Tags(s)

MLTQAAVRLVRGSLRKTSWAEWGHRELRLGQLAPFTAPHKDKSFSDQRSELKRRLKAEKKVAEKEAKQKE
 LSEKQLSQATAAATNHTTDNGVGPPEESVDPNQYYKIRSQAIHQLKVNAGEDPYPHKFHVDISLTDIFIQKY
 SHLQPGDHLTDITLKVAGRIHAKRASGGKLI FYDLRGEVQLQVMANSRNYKSEEEFIHINNKLRRGDII
 GVQGNPGTKKGELSIIPYEITLLSPCLHMLPHLHFGLKDKETRYRQRYLDLILNDFVRQKFIIRSKIIT
 YIRSFLDELGFLEIETPMNIIIPGGAVAKPFIYHNEIDMNL YMRIAPELYHKMLVGGIDRVYEIGRQF
 RNEGIDLTHNPEFTTCEFYMAYADYHDLMEITEKMSVGMVKHITGSYKVTYHPDGPEQAYDVDFTPPFR
 RINMVEELEKALGMKLPETNLFETEETRKILDDICVAKAVECPPRRTARLLDKLVGEFLEVTCINPTFI
 CDHPQIMSPLAKWHSKEGLTERFELFVMKKEICNAYTELNDRPQRQLFEEQAKAKAAGDDEAMFIDEN
 FCTALEYGLPPTAGWGMGIDRVAMFLTDSNNIKEVLLFPAMKPEDKKNVATTDLTLESTTVGTSV

TRTRPLE – GFP Tag – V

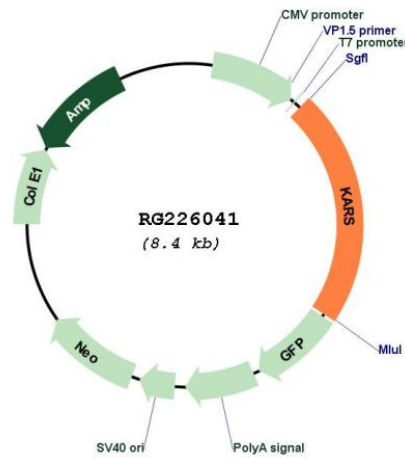
Restriction Sites:

Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001130089

ORF Size: 1875 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:	<ol style="list-style-type: none">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_001130089.2
RefSeq Size:	2197 bp
RefSeq ORF:	1878 bp
Locus ID:	3735
UniProt ID:	Q15046
Cytogenetics:	16q23.1
Protein Pathways:	Aminoacyl-tRNA biosynthesis
Gene Summary:	Aminoacyl-tRNA synthetases are a class of enzymes that charge tRNAs with their cognate amino acids. Lysyl-tRNA synthetase is a homodimer localized to the cytoplasm which belongs to the class II family of tRNA synthetases. It has been shown to be a target of autoantibodies in the human autoimmune diseases, polymyositis or dermatomyositis. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]