

## Product datasheet for **SC326121**

### Lysyl tRNA synthetase (KARS) (NM\_001130089) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Lysyl tRNA synthetase (KARS) (NM_001130089) Human Untagged Clone
Tag:	Tag Free
Symbol:	KARS1
Synonyms:	CMTRIB; DEAPLE; DFNB89; KARS; KARS2; KRS; LEPID
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

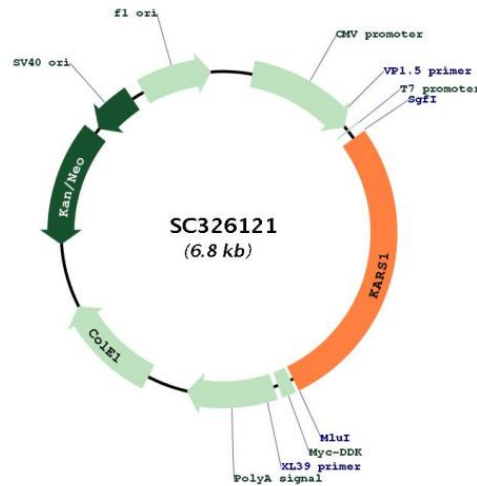


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Fully Sequenced ORF: >SC326121 representing NM\_001130089.  
Blue=Insert sequence Red=Cloning site Green=Tag(s)

```
GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGACTG
GATCCGGTACCGAGGAGATCTGCCGCCCGCATCGCC
ATGTTGACGCAAGCTGCTGTAAGGCTTGTAGGGGGTCCCTGCGCAAAACCTCCTGGGCAGAGTGGGGT
CACAGGGAACGCGACTGGGTCAACTTGCTCCTTTACAGCGCCTCACAAGGACAAGTCATTTTCTGAT
CAAAGAAGTGAGCTGAAGAGACGCCTGAAAGCTGAGAAGAAAGTAGCAGAGAAGGAGGCCAAACAGAAA
GAGCTCAGTGAGAAACAGCTAAGCCAAGCCACTGCTGCTGCCACCAACCACCACTGATATGGTGTG
GGTCTGAGGAAGAGAGCGTGGACCCAAATCAATACTACAAAATCCGCAGTCAAGCAATTCATCAGCTG
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GAATGCCCTCCACCTCGGACCACAGCCAGGCTCCTTGACAAGCTTGTGGGGAGTTCCTGGAAGTACT
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GAGGCCATGTTTCATAGATGAAAACCTTCTGTACTGCCCTGGAATATGGGCTGCCCCACAGCTGGCTGG
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CCTGCCATGAAACCCGAAGACAAGAAGGAGAATGTAGCAACCACTGATACACTGGAAGCACAAACAGTT
GGCACTTCTGTCTAG
ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
```

Restriction Sites: SgfI-MluI

**Plasmid Map:**


**ACCN:** NM\_001130089

**Insert Size:** 1878 bp

**OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

**OTI Annotation:** This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

**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\\_001130089.1](#)

**RefSeq Size:** 2197 bp

**RefSeq ORF:** 1878 bp

**Locus ID:** 3735

**UniProt ID:** [Q15046](#)

**Cytogenetics:** 16q23.1

**Protein Pathways:** Aminoacyl-tRNA biosynthesis

**MW:** 71.5 kDa

**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]

Transcript Variant: This variant (1) encodes the longer isoform (1).