

## Product datasheet for **RC201261**

### Arginyl tRNA synthetase (RARS) (NM\_002887) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Arginyl tRNA synthetase (RARS) (NM_002887) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Arginyl tRNA synthetase
Synonyms:	ArgRS; DALRD1; HLD9; RARS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide  
Sequence:

>RC201261 ORF sequence  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCGCGATCGCC

ATGGACGCTACTGGTGTCTGAGTGTCTCCGCGCGGCTGCTGCAGCAGGAAGAAGAGATTAATCTCTGACTG  
CTGAAATTGACCGTTGAAAACTGTGGCTGTTTAGGAGCTTCTCCAAATTTGGAGCAGTTACAAGAAGA  
AAATTTAAATTAAGTATCGACTGAATATTCTTCGAAAGAGTCTTCAGGCAGAAAGGAACAAACCAACT  
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TCCACTTAAGAAAGGATTTGTATCAGAACAATTGACCAGTCTTCTAGTGAATGGAGTTCAACTACCTGC  
TCTGGGAGAGAATAAAAAGGTTATAGTTGACTTTTCTCCCTAATATAGCTAAAGAGATGCATGTAGGC  
CACCTGAGGTCAACTATCATAGGAGAGAGTATAAGCCGCCTCTTTGAATTTGACGGGTATGACGTGCTCA  
GGTAAATCATGTAGGAGACTGGGGACCCAGTTTGGCATGCTCATCGCTCACCTGCAAGACAAATTTCC  
AGATTATCTAACAGTTTCACCTCTATTGGGGATCTTCAGGTCTTTTATAAGGAATCTAAGAAGAGGTTT  
GATACTGAGGAGGAATTAAGAAGCAGCATATCAGTGTGTAGTTCTGCTCCAGGGTAAAAACCCAGATA  
TTACAAAAGCTTGAAGCTTATCTGTGATGTCTCCCGCAAGAGTTAAATAAAATCTATGATGCATTGGA  
CGTCTCTTTAATAGAGAGAGGGGAATCCTTCTATCAAGATAGGATGAATGATATTGTAAGGAATTTGAA  
GATAGAGGATTTGTGCAGGTGGATGATGGCAGAAAGATTGATTTGTCCCAGGGTGTCCATACCATTA  
CCATAGTAAAATCAGATGGAGTTATACCTATGATACATCTGACCTGGCTGCTATTAACAAAGACTATT  
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CTTCACTAGAATCAGGTCTATTGCAGTCTGGCCAATATTGATGAAGAAATGCTCCAAAAAGCTGCTCGA  
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TTTCACAGAGTTCTATGATAGCTGCTACTGTGTGGAGAAAGATAGACAGACTGGAAAAATATTGAAGGTG  
AACATGTGGCGTATGCTGCTATGTGAAGCAGTAGCTGCTGTCATGGCCAAGGGGTTTGATATCTGGGAA  
TAAACCTGTCCAAGGATG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC201261 protein sequence  
Red=Cloning site Green=Tags(s)

```
MDVLVSECSARLLQQEEEIKSLTAEIDRLKNGCGLGASPNLEQLQEENLKLKYRLNLRKSLQAERNKPT
KNMINIISRLQEVFGHAIKAAYPDLENPPLLVTSPQAKFGDYQCNSAMGISQMLKTKEQKVNPREIAEN
ITKHLDPNECIEKVEIAGPGFINVHLRQDFVSEQLTSLLVNGVQLPALGENKKVIYDFSSPNIKEMHVG
HLRSTIIGESISRLFEFAGYDVLRLNHVGDWGTQFGMLIAHLQDKFPDYLTVPSPPIGDLQVIFYKESKKRF
DTEEEFKKRAYQCVLLQGNPDITKAWKLICDVSRQELNKIYDALDVSLIERGESFYQDRMNDIVKEFE
DRGFVQVDDGRKIVFVPGCSIPLTIVKSDGGYTYDSDLAAIKQRLFEEKADMIYVVDNGQSVHFQTF
AAQMIGWYDPKIVTRVFHAGFGVVLGEDKKFKTRSGETVRLMDLLGEGLKRSMKDLKEKERDKVLTAAE
LNAAQTSVAYGCIKYADLSHNRLNDYIFSFKMLDDRGNATAAYLLYAFTRIRSIARLANIDEEMLQKAAR
ETKILLDHEKEWKLGRCILRFPEILQKILDDLFLHTLCDYIYELATAFTEFYDSCYCVKEKDRQTGKILKV
NMWRMLLCEAVAAMAKGFDILGIKPVQRM
```

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_002887

**ORF Size:** 1980 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\\_002887.2](#)

**RefSeq Size:** 2154 bp

**RefSeq ORF:** 1983 bp

**Locus ID:** 5917

**UniProt ID:** [P54136](#)

**Cytogenetics:** 5q34

**Domains:** tRNA-synt\_1d, N-Arg

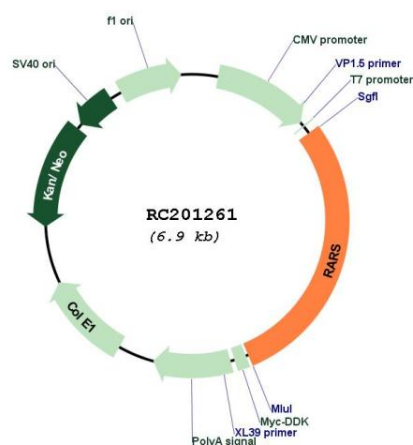
**Protein Families:** Druggable Genome

**Protein Pathways:** Aminoacyl-tRNA biosynthesis

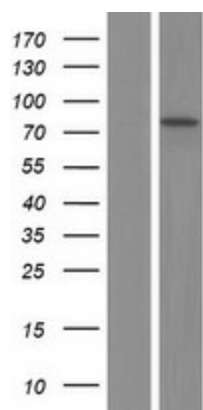
**MW:** 75.4 kDa

**Gene Summary:** Aminoacyl-tRNA synthetases catalyze the aminoacylation of tRNA by their cognate amino acid. Because of their central role in linking amino acids with nucleotide triplets contained in tRNAs, aminoacyl-tRNA synthetases are thought to be among the first proteins that appeared in evolution. Arginyl-tRNA synthetase belongs to the class-I aminoacyl-tRNA synthetase family. [provided by RefSeq, Jul 2008]

### Product images:



Circular map for RC201261



Western blot validation of overexpression lysate (Cat# [LY419034]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201261 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).