

## Product datasheet for **RR214056**

### Fars2 (NM\_001013139) Rat Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Fars2 (NM_001013139) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Fars2
Synonyms:	Fars1
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



[View online »](#)

**ORF Nucleotide Sequence:**

>RR214056 representing NM\_001013139  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGTCTGTTGGCCTTCATCAGAGCTGCCATGAGCACCTCTACCTGGTGAGGAAAGTCAGTCATGTCT  
 GCAGATGTCATCAACATCGGGCTTGGGGCTCAAGGCCAGCTGCATCGCAGTTTGCTGCCAAGTGCTCC  
 AGGCCGTGTGCTGGAGCTGCTTGGTAAATCCTACCCTCAAGATGACCACACTAACCTCACCCAGAAAGTC  
 CTTTCCAAGTGGGCAGGAACCTGCACAACCAGAAGTTCCACCCTCTGTGGCTGATTAAGGAGCGGGTGA  
 AGGAGCACTTCTACCAGCAGTACATGGGGCGATCCAGGACACCTCTGTTCTCCGTCTATGACCAGCTTTC  
 CCCAGTGGTCACCACCTGGCAGAACTTCGATAGCCTGCTAATCCCAGCTGACCACCCAGCAGGAAGAAG  
 GGGGACAACATACTTGAATCGGGGACACATGCTGAGAGCACACATCAGCACATCAGTGGGACTTGC  
 TGCATCGGGGGCTCAATGCCTTCTCGTGGTAGGTGATGTGTATCGGGCTGACCAGATTGATCCCAGCA  
 CTACCCAGTTTTCCACCAGCTGGAGGGCTCCGACTCTTCTCCAAGCATGAGTTATTTGCTGGTGTAAAG  
 GATGGAGAAAGCTTGACGCTCTTTGAAGAAAGTCTCGTTCTGCTCATAAGCAAGAGACACACCATGG  
 AGGCTGTGAAGCTTGTGGAATTTGACCTTAAACAAGTACTCACTAGGCTTGTGACACATCTTTTTGGAGA  
 TGGGCTGGAGGTCGGTGGTGGACTGCTACTTTCCCTTTACCCACCTTCTTCGAGATGGAGATCAAC  
 TTCCGTGGAGAATGGCTTGAAGTCTCGGCTGCGGGGTGATGGAACAACAGCTTGTCAATTCAGCTGGTG  
 CTCAGGATCGGATCGGCTGGGCTTTTGGCTGGGATTAGAGAGACTGGCTATGGTCTCTACGACATCCC  
 GGACATCCGCCTTTCTGGAGTGAGGATGAGCGCTTCTGAAGCAGTCCGCCTATCAGACATCAATCAA  
 AGCGTCAAGTTTCAGAGATGGTTCTTCCAAGAAGAAAGGGCCACAGGAATACAAAGGAAGATGGGAAGAC  
 AGCTCTGCTCTTTAGCAAGTACCCCGCTGTGTTCAATGACATTTCAATCTGGCTGCCCTCCGAGAACTA  
 ACGGAGAATGATTTCTATGACATTGTCCGAACAGTCCGAGGAGACCTGGTGGAAGGTTGATCTTATA  
 GACAAGTTTGAACATCCAAGACACACAGAACCAGCCATTGCTACCGCATTACCTACCGGCACATGGAAC  
 GGACACTGTCCCAGAGAGAAGTCAGCAGTGTCCACCAGGCTGTGCAGGAGCCGCTGTGCAGCTACTGGG  
 TGTGGAAGGCCGTTTT

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RR214056 representing NM\_001013139  
 Red=Cloning site Green=Tags(s)

MVCLAFIRAAHEHLYLVRKVSHVCRCHQHRWGSRPAASQFAVQGAPGRVLELLGKSYPPQDDHTNLTQKV  
 LSKVGRNLHNQKFHPLWL IKERVKEHFYQQYMGRSRTPLFSVYDQLSPVVTTWQNFDSLLIPADHPSRKK  
 GDNYLNRGHMLRAHTSAHQWDLHLHAGLNAFLVVDVYRRDQIDSQHYPVFHQLEGVRLF SKHEL FAGVK  
 DGESLQLFESSRSAHKQETHMEAVKLVEFDLKQVLRVTHLFGDGLVVRWVDCYFPFTHPSFEMEIN  
 FRGEWLEVLGCGVMEQQLVNSAGAQDRIGWAFGLGLERLAMVLYDIPDIRLFWSEDERFLKQFRLSDINQ  
 SVKFQRWFFQEERATGIQRKMGRQLCPF SKYPVFNDISFWLPSENYTFYDIVERVGGDLVEKVDLI  
 DKFEHPKTHRTSHCYRITYRHMERTLSQREVSSVHQAVQEAAVQLLGVEGRF

**TRTRPLEQKLISEEDLAANDILDYKDDDDKV**

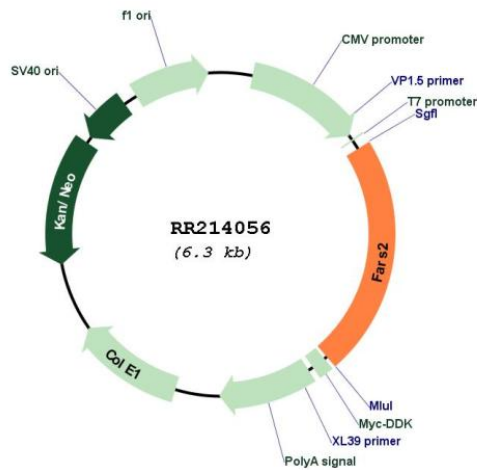
**Restriction Sites:**

SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM\_001013139

ORF Size: 1416 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\\_001013139.1](#), [NP\\_001013157.1](#)

**RefSeq Size:** 1782 bp

**RefSeq ORF:** 1419 bp

**Locus ID:** 306879

**UniProt ID:** [Q6AYQ3](#)

**Cytogenetics:** 17p12

**MW:** 55.2 kDa

**Gene Summary:** Is responsible for the charging of tRNA(Phe) with phenylalanine in mitochondrial translation. To a lesser extent, also catalyzes direct attachment of m-Tyr (an oxidized version of Phe) to tRNA(Phe), thereby opening the way for delivery of the misacylated tRNA to the ribosome and incorporation of ROS-damaged amino acid into proteins.[UniProtKB/Swiss-Prot Function]