

## Product datasheet for **RN214056**

### **Fars2 (NM\_001013139) Rat Untagged Clone**

#### **Product data:**

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



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**Fully Sequenced ORF:** >RN214056 representing NM\_001013139  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGTCTGTTGGCCTTCATCAGAGCTGCCATGAGCACCTCTACCTGGTGAGGAAAGTCAGTCATGTCT  
 GCAGATGTCATCAACATCGGGCTTGGGGCTCAAGGCCAGCTGCATCGCAGTTTGCTGTCCAAGGTGCTCC  
 AGGCCGTGTGCTGGAGCTGCTTGGTAAATCCTACCCTCAAGATGACCACACTAACCTCACCCAGAAAGTC  
 CTTTCCAAGGTGGGCAGGAACCTGCACAACCAGAAGTTCCACCCTCTGTGGCTGATTAAGGAGCGGGTGA  
 AGGAGCACTTCTACCAGCAGTACATGGGGCGATCCAGGACACCTCTGTTCTCCGTCTATGACCAGCTTTC  
 CCCAGTGGTCACCACCTGGCAGAACTTCGATAGCCTGCTAATCCCAGCTGACCACCCAGCAGGAAGAAG  
 GGGGACAATACTTGAATCGGGGACACATGCTGAGAGCACACATCAGCACATCAGTGGGACTTGC  
 TGCATCGGGGCTCAATGCCTTCTCGTGGTAGGTGATGTGTATCGGCGTGACCAGATTGATCCCAGCA  
 CTACCCAGTTTTCCACCAGCTGGAGGGCTCCGACTCTTCTCCAAGCATGAGTTATTTGCTGGTGTAAAG  
 GATGGAGAAAGCTTGACGCTCTTTGAAGAAAGTTCTCGTTCTGCTCATAAGCAAGAGACACACCATGG  
 AGGCTGTGAAGCTTGTGGAATTTGACCTTAAACAAGTACTCACTAGGCTTGTGACACATCTTTTTGGAGA  
 TGGGCTGGAGGTCGGTGGGTTGACTGCTACTTTCCCTTTACCCACCTTCTTCGAGATGGAGATCAAC  
 TTCCGTGGAGAATGGCTTGAAGTCTCGGCTGCGGGGTGATGGAACAACAGCTTGTCAATTCAGCTGGTG  
 CTCAGGATCGGATCGGCTGGGCTTTTGGCTGGGATTAGAGAGACTGGCTATGGTCTCTACGACATCCC  
 GGACATCCGCCTTTCTGGAGTGAGGATGAGCGCTTCTGAAGCAGTCCGCCTATCAGACATCAATCAA  
 AGCGTCAAGTTTCAGAGATGGTTCTTCCAAGAAGAAAGGGCCACAGGAATACAAAGGAAGATGGGAAGAC  
 AGCTCTGTCCTTTAGCAAGTACCCCGCTGTGTTCAATGACATTTCAATCTGGCTGCCCTCCGAGAACTA  
 CACGGAGAATGATTTCTATGACATTGTCCGAACAGTCCGAGGAGACCTGGTGAAAAGGTTGATCTTATA  
 GACAAGTTTGAACATCCAAGACACACAGAACCAGCCATTGCTACCGCATTACCTACCGGCACATGGAAC  
 GGACACTGTCCCAGAGAGAAGTCAGCAGTGTCCACCAGGCTGTGCAGGAGCCGCTGTGCAGCTACTGGG  
 TGTGGAAGGCCGTTTT**TGA**

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:** Sgfl-Mlul

**ACCN:** NM\_001013139

**Insert Size:** 1419 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).

**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

**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]