

Product datasheet for **MG215616**

Fars2 (NM_001039189) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Fars2 (NM_001039189) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Fars2
Synonyms:	Fars1; pheRS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG215616 representing NM_001039189
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGTCTGCTTGGCTCTCGTCAGAGCTGCCTATGAGCACATCTACCTGGTGAGGAAGGTCAGTCATGCCT
 GCAGATGCCATCAACATCGGGCTTGGAGCTCAAAGCCAGCTGCATCACAGTCTGCTGTCCAGGGTCTCC
 AGGCAGTGTGCTGGAGATACTTGGTAAATCCTACCCTCAGGATGACCACACTAACCTCACCCAGAAGGTC
 CTTTCAAAGTGGGCAGGAACCTGCACAACCAGAAGTTCCACCCTCTGTGGCTGATTAAGGAGCGGGTGA
 AGGAGCACTTCTACCAGCAGTATATGGTGCATCCAGGACACCTCTATTCTCCGTCTATGACCAGCTTCC
 TCCAGTGGTCACCACCTGGCAGAACTTTGATAGCCTGCTAATCCCAGCTGACCACCCAGCAGGAAAAAG
 GGGGACAATACTTGAATCGGGCACACATGCTGAGAGCACACACATCAGCGCATCAGTGGGACTTGC
 TGCATCGGGACTTAATGCCTTCTTGTGGTAGGTGACGTGTATCGTCGTGACCAGATTGATTGCCAGCA
 CTACCCAGTTTTCCACCAGCTGGAGGGTGTCCGGCTTCTCCAAGCATGAGTTATTTGCTGGCGTAAAG
 GATGGAGAAAGCTTGCAGCTCTTTGAAGAAGGTTCTCGCTCTGCTCATAAGCAGGAGACACACCATGG
 AGGCTGTGAAGCTTGTGGAGTTCGACCTTAAACAAGTACTGACTAGGCTTGTGACACATCTTTTTGGAGA
 TGGGCTGGAGGTTGGTGGGTTGCTACTTCCCTTCCACCCACCTTCTTCGAGATGGAGATCAAC
 TTCCGTGGAGAATGGCTTGAAGTCTTGGCTGCGGTGTGATGGAGCAGCAGCTTGTCAATTCAGCTGGTG
 CTCAGGATCGAATCGGCTGGGCGTTTGGCTGGGATTAGAAAGATTGGCGATGGTCTCTACGACATTCC
 TGACATCCGCCTTTCTGGAGTGAGGATGAGCGCTTCTGAAGCAGTTCTCCTGTCCGACATCAACCAG
 AGTGTCAAGTTTCAGCCTCTTAGCAAGTACCCCGCGTGTCAATGACATTTTCTTGGCTGCCCTCTG
 AGAACTACACGGAGAATGATTTCTATGACATCGTCCGAACAGTCCGAGGAGACCTGGTAGAAAAGTTGA
 TCTTATAGACAAGTTTGAACATCCAAGACACACAGGACCAGCCACTGCTACCGCATTACCTACCGCCAC
 ATGGAACGGCACTGTCCAGAGAGAAGTCCGCAATGTCCACCAGGCTGTGCAGGAGGCCCGCTGCAGC
 TGCTGGGTGTGGAGGGCCGTTTC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

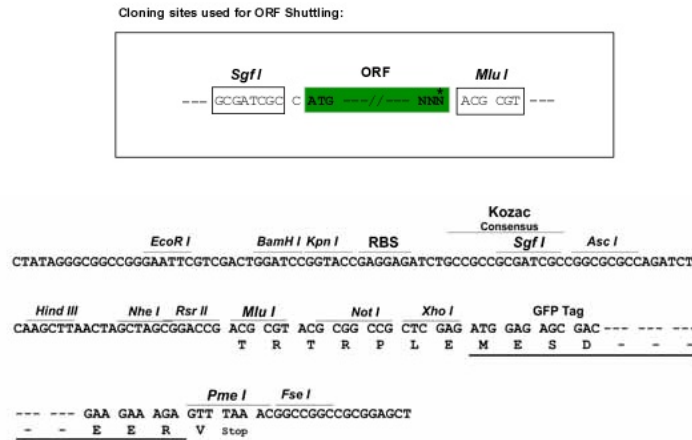
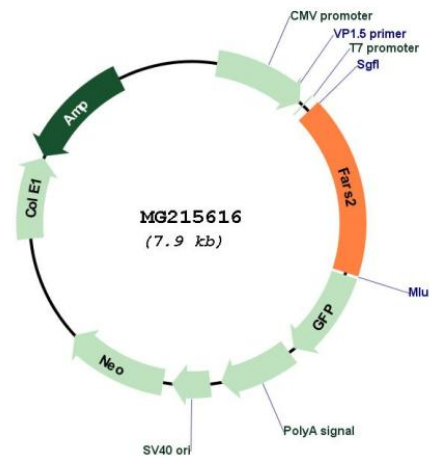
>MG215616 representing NM_001039189
 Red=Cloning site Green=Tags(s)

MVCLALVRAAYEHIYLVKRVSHACRCHQHRAWSSKPAASQSAVQGAPGSVLEILGKSYPPDDHTNLTKV
 LSKVGRNLHNQKFHPLWLIKERVKEHFYQQYMVRSRTPLFVSYDQLPPVVTTWQNFDSLLIPADHPSRKK
 GDNYYLNRHMLRAHTSAHQWDLHAGLNAFLVVDVYRRDQIDCQHYPVFHQLEGVRLF SKHEL FAGVK
 DGESLQLFEEGSRSAHKQETHMEAVKLVEFDLKQVLRVTHLFGDGLVVRWVDCYFPFTHPSFEMEIN
 FRGEWLEVLGCGVMEQQLVNSAGAQDRIGWAFGLGLERLAMVLYDIPDIRLFWSEDERFLKQFLLSDINQ
 SVKFQPLSKYPVFNDFISFWLPSENYTENDFYDIVRTVGGDLVEKVDLIDKFEHPKTHRTSHCYRITYRH
 MERTLSQREVGNVHQAVQEAAVQLLGVEGRF

TRTRPLE – GFP Tag – V

Restriction Sites:

SgfI-MluI

Cloning Scheme:

Plasmid Map:


ACCN: NM_001039189

ORF Size: 657 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:	<u>NM_001039189.1, NP_001034278.1</u>
RefSeq Size:	1507 bp
RefSeq ORF:	660 bp
Locus ID:	69955
Cytogenetics:	13 A3.3
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 (By similarity).[UniProtKB/Swiss-Prot Function]