

Product datasheet for **RC205843**

FARS2 (NM_006567) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	FARS2 (NM_006567) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	FARS2
Synonyms:	COXPD14; FARS1; HSPC320; mtPheRS; PheRS; SPG77
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC205843 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGTGGGCTCAGCTCTCAGGAGAGGTGCCATGCATATGTCTACCTGGTGAAGTAAAGCCAGTCACATCT
 CCAGAGGCCATCAGCACCAGGCCTGGGGATCGAGGCCTCCTGCAGCAGAGTGTGCCACCCAAAGAGCTCC
 AGGCAGTGTGGTGGAGCTGCTGGGCAAATCCTACCCTCAGGACGACCACAGCAACCTCACCCGGAAGGTC
 CTCACCAGAGTTGGCAGGAACCTGCACAACCAGCAGCATCACCTCTGTGGCTGATCAAGGAGAGGGTGA
 AGGAGCACTTCTACAAGCAGTATGTGGCCGCTTTGGACCCCGTTGTTCTCGGTCTACGACAACCTTTC
 TCCAGTGGTCACGACCTGGCAGAACTTTGACAGCCTGCTCATCCAGCTGATCACCCAGCAGGAAGAAG
 GGGGACAACCTATTACCTGAATCGGACTCACATGCTGAGAGCGCACAGTCTGCACACCAGTGGGACTTGC
 TGCACGGGGACTGGATGCCTTCTGGTGGTGGTGTATGTCTACAGGCGTGACCAGATCGACTCCCAGCA
 CTACCCTATTTCCACCAGCTGGAGCCGTGCGGCTCTTCTCAAACATGAGTTATTTGCTGGTATAAAG
 GATGGAGAAAGCCTGCAGCTCTTTGAACAAAGTCTCGCTCTGCGCATAAACAAGAGACACACCATGG
 AGGCCGTGAAGCTTGTAGAGTTTGTATCTTAAGCAAACGCTTACCAGGCTCATGGCACATCTTTTGGAGA
 TGAGCTGGAGATAAGATGGGTAGACTGCTACTTCCCTTTTACACATCCTTCTTTGAGATGGAGATCAAC
 TTTTCATGGAGAATGGCTGGAAGTTCTTGGCTGCGGGGTGATGGAACAACAACCTGGTCAATTCAGCTGGT
 CTCAAGACCGAATCGGCTGGGCTTTTGGCTAGGATTAGAAAGGCTAGCCATGATCCTCTACGACATCCC
 TGATATCCGTCTCTTCTGGTGTGAGGACGAGCGCTTCTGAAGCAGTTCTGTGTATCCAACATTAATCAG
 AAGGTGAAGTTTCAGCCTCTTAGCAAATATCCGGCTGTGATCAATGATATTTTCTTCTGGTTGCCCTCTG
 AGAATTACGCAGAAAATGATTTCTATGACTTAGTCCGAACAATTGGAGGAGACCTGGTGGAAAAGGTTGA
 TCTCATAGACAAGTTTGTACATCCAAGACGCACAAGACCAGCCACTGCTACCGCATCACGTACCGCCAC
 ATGGAACGGACTCTGTCCAGAGAGAGGTGAGGCACATCCACCAGGCCTTGCAGGAGGCTGCAGTCCAGC
 GTTGGGTGTGGAGGCGAGTTTC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC205843 protein sequence
 Red=Cloning site Green=Tags(s)

MVGSALRRGAHAYVYL VSKASHISRGHQHQAWGSRPPAAECATQRAPGSVVELLGKSYQQDDHNSL TRKV
 LTRVGRNLHNQHHPLWL IKERVKEHFYKQYVGRFGTPLFSVYDNLSPVVTWQNFDSLIPADHPSRKK
 GDNYLNRTHMLRAHTSAHQWDL LHAGLDAFLVGDVYRRDQIDSQHYP IFHQLEAVRLF SKHEL FAGIK
 DGE SLQ LFEQSSRS AHKQETHTMEAVKL VFDL KQTL TRLMAHLFGDELEIRWVDCYFPFTHPSFEMEIN
 FHGEWLEVLGCGVMEQQLVNSAGAQRIGWAFGLGLERLAMILYDIPDIRLFWCEDERFLKQFCVSNINQ
 KVKFQPLSKYPAVINDISFWLPSENYAENDFYDLVRTIGGDLVEKVLDIDKFVHPKTHKTSHCYRITYRH
 MERTLSQREVRHIHQALQEAAVQLLGVEGRF

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6564_f08.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_006567

ORF Size: 1353 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_006567.5](#)

RefSeq Size: 1841 bp

RefSeq ORF: 1356 bp

Locus ID: 10667

UniProt ID: [O95363](#)

Cytogenetics: 6p25.1

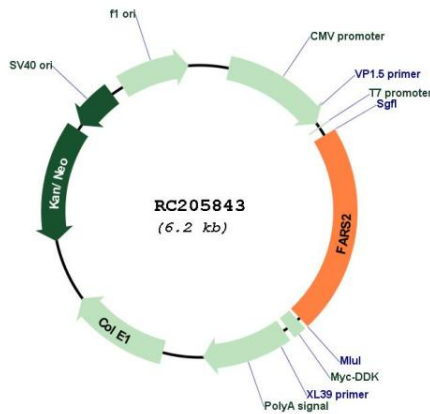
Domains: tRNA-synt_2d, FDX-ACB

Protein Pathways: Aminoacyl-tRNA biosynthesis

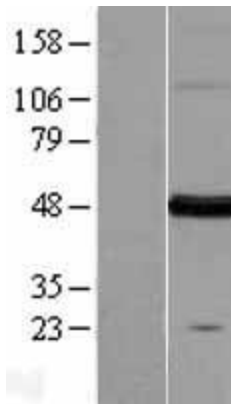
MW: 52.4 kDa

Gene Summary: This gene encodes a protein that transfers phenylalanine to its cognate tRNA. This protein localizes to the mitochondrion and plays a role in mitochondrial protein translation. Mutations in this gene can cause combined oxidative phosphorylation deficiency 14 (Alpers encephalopathy). Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jan 2016]

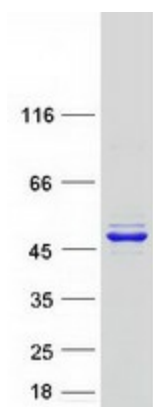
Product images:



Circular map for RC205843



Western blot validation of overexpression lysate (Cat# [LY416556]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205843 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified FARS2 protein (Cat# [TP305843]). The protein was produced from HEK293T cells transfected with FARS2 cDNA clone (Cat# RC205843) using MegaTran 2.0 (Cat# [TT210002]).