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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)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGTGGGCTCAGCTCTCAGGAGAGGTGCCCATGCATATGTCTACCTGGTGAGTAAGGCCAGTCACATCT
CCAGAGGCCATCAGCACCAGGCCTGGGGATCGAGGCCTCCTGCAGCAGAGTGTGCCACCCAAAGAGCTCC
AGGCAGTGTGGTGGAGCTGCTGGGCAAATCCTACCCTCAGGACGACCACAGCAACCTCACCCGGAAGGTC
CTCACCAGAGTTGGCAGGAACCTGCACAACCAGCAGCATCACCCTCTGTGGCTGATCAAGGAGAGGGTGA
AGGAGCACTTCTACAAGCAGTATGTGGGCCGCTTTGGGACCCCGTTGTTCTCGGTCTACGACAACCTTTC
TCCAGTGGTCACGACCTGGCAGAACTTTGACAGCCTGCTCATCCCAGCTGATCACCCCAGCAGGAAGAAG
GGGGACAACTATTACCTGAATCGGACTCACATGCTGAGAGCGCACACGTCTGCACACCAGTGGGACTTGC
TGCACGCGGGACTGGATGCCTTCCTGGTGGTGGGTGATGTCTACAGGCGTGACCAGATCGACTCCCAGCA
CTACCCTATTTTCCACCAGCTGGAGGCCGTGCGGCTCTTCTCCAAACATGAGTTATTTGCTGGTATAAAG
GATGGAGAAAGCCTGCAGCTCTTTGAACAAAGTTCTCGCTCTGCGCATAAACAAGAGACACACACCATGG
AGGCCGTGAAGCTTGTAGAGTTTGATCTTAAGCAAACGCTTACCAGGCTCATGGCACATCTTTTTGGAGA
TGAGCTGGAGATAAGATGGGTAGACTGCTACTTCCCTTTTACACATCCTTCCTTTGAGATGGAGATCAAC
TTTCATGGAGAATGGCTGGAAGTTCTTGGCTGCGGGGTGATGGAACAACAACTGGTCAATTCAGCTGGTG
CTCAAGACCGAATCGGCTGGGCTTTTGGCCTAGGATTAGAAAGGCTAGCCATGATCCTCTACGACATCCC
TGATATCCGTCTCTTCTGGTGTGAGGACGAGCGCTTCCTGAAGCAGTTCTGTGTATCCAACATTAATCAG
AAGGTGAAGTTTCAGCCTCTTAGCAAATATCCGGCTGTGATCAATGATATTTCATTCTGGTTGCCCTCTG
AGAATTACGCAGAAAATGATTTCTATGACTTAGTCCGAACAATTGGAGGAGACCTGGTGGAAAAGGTTGA
TCTCATAGACAAGTTTGTACATCCAAAGACGCACAAGACCAGCCACTGCTACCGCATCACGTACCGCCAC
ATGGAACGGACTCTGTCCCAGAGAGAGGTCAGGCACATCCACCAGGCCTTGCAGGAGGCTGCAGTCCAGC
TGTTGGGTGTGGAGGGCAGGTTC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

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

MVGSALRRGAHAYVYLVSKASHISRGHQHQAWGSRPPAAECATQRAPGSVVELLGKSYPQDDHSNLTRKV
LTRVGRNLHNQQHHPLWLIKERVKEHFYKQYVGRFGTPLFSVYDNLSPVVTTWQNFDSLLIPADHPSRKK
GDNYYLNRTHMLRAHTSAHQWDLLHAGLDAFLVVGDVYRRDQIDSQHYPIFHQLEAVRLFSKHELFAGIK
DGESLQLFEQSSRSAHKQETHTMEAVKLVEFDLKQTLTRLMAHLFGDELEIRWVDCYFPFTHPSFEMEIN
FHGEWLEVLGCGVMEQQLVNSAGAQDRIGWAFGLGLERLAMILYDIPDIRLFWCEDERFLKQFCVSNINQ
KVKFQPLSKYPAVINDISFWLPSENYAENDFYDLVRTIGGDLVEKVDLIDKFVHPKTHKTSHCYRITYRH
MERTLSQREVRHIHQALQEAAVQLLGVEGRF

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

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

Restriction Sites: SgfI-MluI

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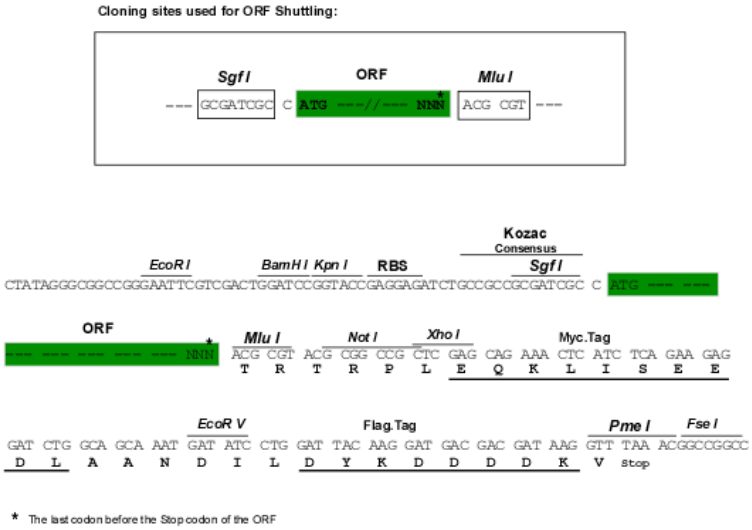
Cloning Scheme:



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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: NM_006567.5

RefSeq Size: 1841 bp

RefSeq ORF: 1356 bp

Locus ID: 10667

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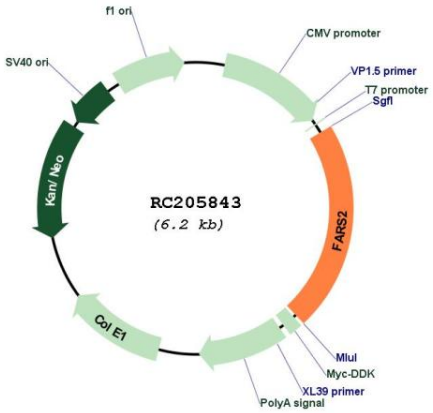
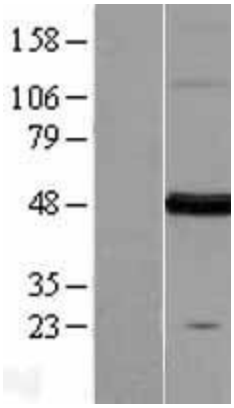
UniProt ID:	O95363
Cytogenetics:	6p25.1
Domains:	tRNA-synt_2d, FDX-ACB
Protein Pathways:	Aminoacyl-tRNA biosynthesis
MW:	52.4 kDa
Gene Summary:	This gene encodes a protein that transfers phenylalanine to its cognate tRNA. This protein localizes to the mitochondrion and plays a role in mitochondrial protein 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 un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205843 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).

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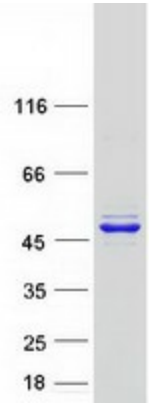

Coomassie blue staining of purified FARS2 protein (Cat# [TP305843]). The protein was produced from HEK293T cells transfected with FARS2 cDNA clone (Cat# RC205843) using MegaTran 2.0 (Cat# [TT210002]).

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