

Product datasheet for **RC207360**

DARS2 (NM_018122) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	DARS2 (NM_018122) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	DARS2
Synonyms:	ASPRS; LBSL; MT-ASPRS; mtAspRS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC207360 representing NM_018122
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTA**CTTCCCTTCTTGGTTAAGTCAGCTGTACAGGGTTTATCCAGACCCATCAGAAGGACCACCAAC**
CGATCTGGGGTTCTCTCTACAGAAGTCTGTTGCAGAGTTCACAGAGGAGAATTCAGAATTCAGTAGCTT
TGTTGTCCGGACCAACACATGTGGAGAGTTGCGTTCGCTCACTTAGGCCAAGAAGTCACCTTGTGTGGA
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CCTGGCCCAATGACAAAGATCCTGTGGTTGTTCTTTCTACTATGACTTTTGTGAGGTGCTGGCCAC
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AAGGAGCAAAATACTTAAAAAGGAAAGACATTGAATCCATTAGAACTTTGCAGCTGACCATTTAATCA
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ATCCGAGTCTCCAAGCCAACAGACTCCAAGCAGAAAGAGCTCAT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
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Protein Sequence: >RC207360 representing NM_018122
Red=Cloning site **Green**=Tags(s)

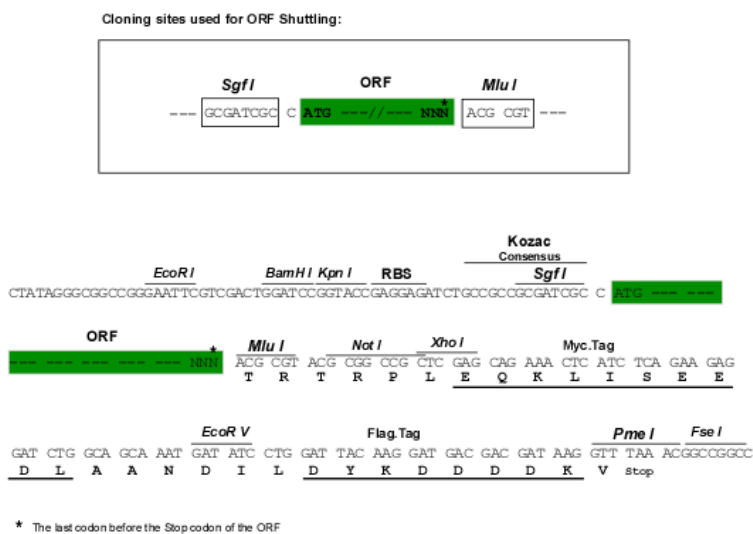
MYFPSWLSQLYRGLSRPIRRTTQPIWGSLSYRSLQSSQRRPEFSSFFVVRTNTCGELRSSHLGQEVTLGG
WIQYRRQNTFLVLRDFDGLVQVIIPQDESAASVKKILCEAPVESVVQVSGTVISRPAQENPKMPTGEIE
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SQRLELIRLMETQEEDVLLTAGEHNKACSLGKLRLECADLLETRGVVLRDPTLFSFLVWYDFPLFLPK
EENPRELESAHHPFTAPHPSDIHLLYTEPKKARSQHYDLVLNGNEIGGGSIRIHNAELQRYILATLLKED
VKMLSHLLQALDYGAPPHGGIALGLDRLICLVTGSPSIRDVIAFPKSFGRHDLMSNTPDSVPPEELKPYH
IRVSKPTDSKAERAH

TRTRP**LEQKLISEEDLA**NDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg2737_f09.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_018122

ORF Size: 1935 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_018122.5](#)

RefSeq Size: 3187 bp

RefSeq ORF: 1938 bp

Locus ID: 55157

UniProt ID: [Q6PI48](#)

Cytogenetics: 1q25.1

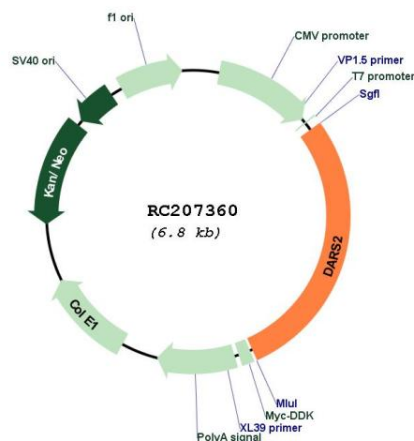
Domains: GAD, tRNA-synt_2

Protein Pathways: Aminoacyl-tRNA biosynthesis

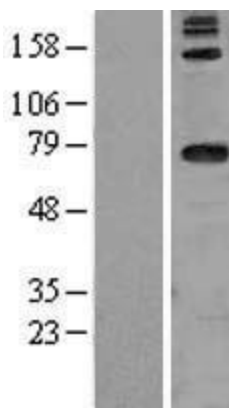
MW: 73.4 kDa

Gene Summary: The protein encoded by this gene belongs to the class-II aminoacyl-tRNA synthetase family. It is a mitochondrial enzyme that specifically aminoacylates aspartyl-tRNA. Mutations in this gene are associated with leukoencephalopathy with brainstem and spinal cord involvement and lactate elevation (LBSL). [provided by RefSeq, Nov 2009]

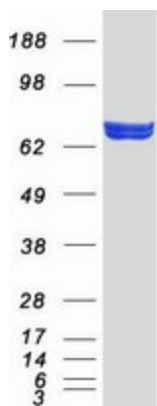
Product images:



Circular map for RC207360



Western blot validation of overexpression lysate (Cat# [LY413308]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC207360 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified DARS2 protein (Cat# [TP307360]). The protein was produced from HEK293T cells transfected with DARS2 cDNA clone (Cat# RC207360) using MegaTran 2.0 (Cat# [TT210002]).