

Product datasheet for **SC113685**

DARS2 (NM_018122) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	DARS2 (NM_018122) Human Untagged Clone
Tag:	Tag Free
Symbol:	DARS2
Synonyms:	ASPRS; LBSL; MT-ASPRS; mtAspRS
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >NCBI ORF sequence for NM_018122, the custom clone sequence may differ by one or more nucleotides

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ATGTA CTTCCTTCTTGGTTAAGTCAGCTGTACAGGGGTTTATCCAGACCCATCAGAAGGACCACCAAC
CGATCTGGGGTTCTCTACAGAAGTCTGTTGCAGAGTTCACAGAGGAGAATCCAGAATTCAGTAGCTT
TGTTGTCCGGACCAACACATGTGGAGAGTTGCGTTCGCTCACTTAGGCCAAGAAGTACCTTGTGTGGA
TGGATTACGTACCGAAGGCAAAACACATTCTTGGTCTAAGAGATTTTCGATGGGCTTGTCAAGTTATCA
TTCCCCAGGATGAGTCGGCAGCCTCTGTGAAGAAGATTTTATGTGAAGCCCTGTGGAATCTGTGGTGCA
AGTGTCTGGTACAGTCATTTCCCGTCTGCAGGACAAGAGAATCCAAAAATGCCAACAGGTGAGATTGAA
ATCAAAGTTAAAACAGCTGAGCTTCTGAATGCCTGCAAGAAGCTGCCCTTTGAAATTAAGAACTTCGTGA
AGAAAACAGAGGCTCTTCGGTTGCAGTATCGCTACTTAGACTTGCAGTAGTTTCCAAATGCAGTAAACCT
GCGACTGAGGTCCAGATGGTCATGAAAATGCGGGAATATCTCTGTAATCTGCATGGGTTTGTGGATATA
GAAACCCACATTTGTTAAGAGGACCCAGGGGGTGCCAAAGAGTTTTAGTACCATCCAGGGAACCTG
GAAAGTTTTATTCTCCCTCAGAGTCTCAACAGTTTAAAGCACTTCTGATGGTTGGCGGTTTAGACAG
ATATTTTCAGGTTGCCCGATGTTATCGAGATGAAGGTTCAAGACCAGACAGACAGCTGAGTTTACTCAG
ATTGACATAGAGATGTCATTTGTAGACCAGACTGGGATCCAGAGTTAATTGAGGGTTTGTCTCCAGTATT
CCTGGCCCAATGACAAAGATCCTGTGGTTGTTCTTTTCTACTATGACTTTTGTGAGGTGCTGGCCAC
CTATGGAAGTATAAACCTGACACTCGCTTTGGAATGAAGATTATAGATATCAGTGATGTGTTTAGAAAAC
ACAGAGATTGGATTTCTCAAGATGCACCTAGTAAAGCCCATGGAAGTGTGAAAGCCATATGTATCCCTG
AAGGAGCAAAACTTAAAAAGGAAAGACATTGAATCCATTAGAACTTTCAGCTGACCATTTTAAATCA
GGAAATTTACCTGTATTCCTAACGCCAATAGAACTGGAATTTCCAGTTGCTAATTTCAATATGGAG
TCACAAAGACTGGAATTAATCAGACTAATGGAGACCCAAAGAGGAAGATGTGGTCTACTAAGCTGGAG
AGCACAATAAAGCATGCTCTTTGTTAGGAAAATTACGACTGGAATGTGCTGACCTTCTAGAAAACAAGAGG
AGTGGTGTCCGTGACCCCACTCTGTTCTCTTTTGGTGGTGTAGATTTCCCACTTCTCTGCCCAAG
GAGGAAAATCCCAGAGAGCTGGAATCGGCCACCACCCATTTACTGCTCCCAACCCAGTGACATACATC
TCCTGTACACTGAGCCCAAAAGGCCCGTAGCCAACTATGACTTGGTTTTAAATGGCAATGAAATAGG
AGGTGGTTCAATTCGAATTCACAATGCAGAGCTGCAGCGTTATATCCTGGCAACCTTACTAAAGGAGGAT
GTGAAAATGCTCTCCATCTGCTCCAGGCTTAGATTATGGGGCACCCCTCATGGAGGAATTGCCTTAG
GGTTAGACAGACTGATATGCCTTGTCACTGGATCTCAAGCATCAGAGATGTCATAGCCTTCCCAAAGTC
CTTCCGGGACATGACCTCATGAGCAATACCCAGATTCTGTCCCTCCTGAGGAAGTGAAGCCCTATCAT
ATCCGAGTCTCAAGCCAACAGACTCCAAGCAGAAAGAGCTCATTGA
    
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5' Read Nucleotide Sequence:

>OriGene 5' read for NM_018122 unedited

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GATTTTGTAAATACGACTCACTATAGGGCGCCGGAATTCGGCAGGAGGTTCTCTCTAC
AGAAGTCTGTTGCAGAGTTCACAGAGGAGAATCCAGAATTCAGTAGCTTTGTTGTCCGG
ACCAACACATGTGGAGAGTTGCGTTCGCTCACTTAGGCCAAGAAGTACCTTGTGTGGA
TGGATTACGTACCGAAGGCAAAACACATTCTTGGTCTAAGAGATTTTCGATGGGCTTGT
CAAGTTATCATTCCCAGGATGAGTCGGCAGCCTCTGTGAAGAAGATTTTATGTGAAGCC
CCTGTGGAATCTGTGGTGAAGTGTCTGGTACAGTCATTTCCCGTCTGCAGGACAAGAG
AATCCAAAAATGCCAACAGGTGAGATTGAAATCAAAGTTAAAACAGCTGAGCTTCTGAAT
GCCTGCAAGAAGCTGCCCTTTGAAATTAAGAACTTCGTGAAGAAAACAGAGGCTCTTCGG
TTGCAGTATCGCTACTTAGACTTGCAGTAGTTTCCAAATGCAGTATAACCTGCGACTGAGG
TCCCAGATGGTTCATGAAAATGCGGGAATATCTCTGTAATCTGCATGGGTTTGTGGATATA
GAAACCCACATTTGTTAAGAGGACCCAGGGGGTGCCAAAGAGTTTTAGTACCATCC
AGGGAACCTGGNAAGTTTTATTCTCCCTCAGAGTCTCAACAGTTTAAAGCAACTTCTG
ATGTTTGGCGGGTTAGACAGATATTTTCAAGTTGCCCGATGTTATCGAGATGAAGTTTCA
AGACCAGACAGACAGCCCTNAGTTTACTCAGATTGACATAGAGATGTCATTTGTAGACCA
GACTGGGATCCAGAGTTTATATGAGGGTTTGTCTCCAGT
    
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3' Read Nucleotide Sequence:	>OriGene 3' read for NM_018122 unedited GGCCGCAATCTANAGTCGAGTTTTTTTTTTTTTTTTTTATAATTATTAGTTTATTTAAAAC TTTTATGTGTATGATTAGAACTAAAATCACAATGAGTTTTGGTGTTCACTTTTTCGCAC ATTTGAGGTTAATCTAAGGTTGATTAGAATTTCAATTACTTATAAATTGAGAGAAAATAG TGTTTCAGTGATTAATAATATCTTTGTTGCTTTTTTTTTTTTTTTGAGATGGAGTCTTGCTCT GTCACCCAGGCTGGAGTGAATGGCACCATCTTGGCTCACTGCAACCTCCATCTCCCAGG TTCAAGCAAACCTCATGCCTCAGCCTCCGAGTGGTGGCATTACAGGCATGCGCCACCA TGCTGGCTAATTTTTGTGTTTTTAGTAGAGACGTTTTCACTATGTTGGCCAGGCTGGTG TTGAACTCCTGACCTCAAGTGATCCACCACCTCAATCTCCCAAAGTGCTGGGATTACAG GTGTGAGCCACCCTCCCGCCAATAATATCTTTAAAACAAAAAAGCAGAAAATTG ATAAGTAAAATGACTTTTACTATTGATATCAGTNTGTTAATCTGAAACTATAAAATAG AGATATATCTACCTATTTATGGATGGATAATACCATCATCTCATATTTGGGGAATGCTTT ATAGTTTTCAAAGTACTTTTATCACTTTATCTCCATATATGGGATCCTCTCTGATTC CAGCAATAACAGCCCGGTGAGGTAGCCAGGCAAGTATGTTTTTACACTTAAACAGGAA GGGAAGCTAAGCGAGGTTTATGTACTTACTCAGCCTGAAACACTGAAGAAAAATTGTGAC TCTCATTTTCAGGGAGGTTTCTGCTTATTAATAATTTAGCCCTCCTCCTTATATTGGGGG GGTGAAGGCCTTTAACCTAATTTAATGATCCTCTGCGAGGGGAGAAACATGGTCTTC CTCCTATTTACGGG
Restriction Sites:	NotI-NotI
ACCN:	NM_018122
Insert Size:	3370 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:	<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_018122.1, NP_060592.1</u>
RefSeq Size:	3348 bp
RefSeq ORF:	3348 bp
Locus ID:	55157
UniProt ID:	<u>Q6PI48</u>
Cytogenetics:	1q25.1
Domains:	GAD, tRNA-synt_2

Protein Pathways: Aminoacyl-tRNA biosynthesis

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]