

Product datasheet for SC127382

Leucyl tRNA synthetase (LARS) (NM_020117) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Leucyl tRNA synthetase (LARS) (NM_020117) Human Untagged Clone
Tag:	Tag Free
Symbol:	Leucyl tRNA synthetase
Synonyms:	hr025Cl; HSPC192; ILFS1; LARS; LEURS; LEUS; LFIS; LRS; PIG44; RNTLS
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	<p>>OriGene ORF within SC127382 sequence for NM_020117 edited (data generated by NextGen Sequencing)</p> <pre> ATGGCGGAAAGAAAAGGAACAGCCAAAGTGGACTTTTTGAAGAAGATTGAGAAAGAAATC CAACAGAAATGGGATACTGAGAGAGTGTGAGGTCAATGCATCTAATTTAGAGAAACAG ACCAGCAAGGGCAAGTATTTTGAACCTTCCCATATCCATATATGAATGGACGCCTTCAT TTGGGACACACGTTTTCTTTATCCAAATGTGAGTTTGCTGTAGGGTACCAGCGATTGAAA GGAAAAATGTTGTCTGTTTCCCTTTGGCCTGCACTGTACTGGAATGCCTATTAAGGCATGT GCTGATAAGTTGAAAAGAGAAATAGAGCTGTATGGTTGCCCCCTGATTTTCCAGATGAA GAAGAGGAAGAGGAAGAAACCAAGTGTTAAACAGAAGATATAATAATTAAGGATAAAGCT AAAGGAAAAAAGAGTAAAGCTGCTGCTAAAGCTGGATCTTCTAAATACCAGTGGGGCATT ATGAAATCCCTTGGYCTGTCTGATGAAGAGATAGTAAATTTTCTGAAGCAGAACATTGG CTTGATTATTTCCCGCCACTGGCTATTCAGGATTTAAAAAGAATGGGTTTGAAGGTAGAC TGGCGTCGTTCCCTTCATCACCCTGATGTTAATCCTTACTATGATTCTMTTGTGATGAG CAATTTTAAACATTAAGAGAAAGAAACAAAATTAATTTGGGAAGCGGTATACAATTTAC TCTCCGAAAGATGGACAGCCTTGATGATCATGATAGACAACTGGAGAGGGTGTGGA CCTCAGGAATATACTTTACTCAAATTGAAGGTGCTTGAGCCATACCCATCTAAATTAAGT GGCCTGAAAGGTAAAAATATTTTCTTGGTGGCTGCTACTCTCAGACCTGAGACCATGTTT GGGCAGACAAATTGTTGGGTTGCTCCTGATATGAAGTACATTGGATTTGAGACGGTGAAT GGTGATATATTCATCTGTACCCAAAAAGCAGCCAGGAATATGTCATACCAGGGCTTTACC AAAGACAATGGCGTGGTGCCTGTTGTTAAGGAATTAATGGGGGAGGAAATCTTGGTGCA TCACTTTCTGCACCTTTAACATCATACAAGGTGATCTATGTTCTCCCAATGCTAACTATT AAGGAGGATAAAGGCACTGGTGTGGTTACAAGTGTTCCTTCCGACTCCCCTGATGATATT GCTGCCCTCAGAGACTTGAAGAAAAAGCAAGCCTTACGAGCAAAATATGGAATTAGAGAT GACATGGTCTTGCCATTTGAGCCGGTGCCAGTCATTGAAATCCCAGGTTTTGGAATCTT TCTGCTGTAACCATTTGTGATGAGTTGAAAATTCAGAGCCAGAATGACCGGAAAAAAGCTT GCAGAAGCAAAGGAGAAGATATATCTAAAAGGATTTTATGAGGGTATCATGTTGGTGGAT GGATTTAAAGGACAGAAGGTTCAAGATGTAAGAAGACTATTCAGAAAAAGATGATTGAC </pre>



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GCTGGAGATGCACTTATTTACATGGAACCAGAGAAACAAGTGATGTCCAGGTCGTCAAGT
 GAATGTGTTGTGGCTCTGTGTGACCAAGTGGTACTTGGATTATGGAGAAGAGAATTGGAAG
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 ATTTCTGAGCATGCTGTTTTCAATGTGGACCTCATGAGCAAGAAAATTCTATCTGACTGAG
 AATGGGATAAGGGTGGATATTGGCGATACAATAATCTATCTGGTTCATTAA

Clone variation with respect to NM_020117.9

495 c=>y;648 a=>m;1747 c=>y;2094 c=>y;2673 t=>k;2674 a=>r;2775 t=>y

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_020117 unedited
 TGTAATACGACTTCACTATAGGGCGGCCGCAATTCGCACGAGGGTTTCGTGGGAGGCCT
 GGCATCTCCGAGAGGGAGGGGAAAGGTAACCACTCCTTTGTGGAGGTCGCCAGGGTCATT
 GTCGTGGATTTCACAGTCGGCTGGGCGGTGCAATGGCGGAAAGAAAAGGAACAGCCAAA
 GTGGACTTTTTGAAGAAGATTGAGAAAGAAATCCAACAGAAATGGGATACTGAGAGAGTG
 TTTGAGGTCAATGCATCTAATTTAGAGAAACAGACCAGCAAGGGCAAGTATTTTGTAAAC
 TTCCCATATCCATATATGAATGGACGCCCTTCATTTGGGACACAGTTTTCTTTATCCAAA
 TGTGAGTTTGCTGTAGGGTACCAGCGATTGAAAGGAAAATGTTGCTGTTCCCTTTGGC
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 CTGTATGGTTGCCCCCTGATTTTCCAGATGAAGAAGAGGAAGAGGAAGAAACAGTGTT
 AAAACAGAAGATATAATAATTAAGGATAAAGCTAAAGGAAAAAGAGTAAAGCTGCTGCT
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 AGAGATAGTAAAAATTTCTGAAGCAGAACATTGGCTTGATTATTTCCCGCCACTGGCTAT
 TCAGGATTAATAAATTTGGGTTTTGAAGGTAGACTGGGGCGTCGTTCTTCATCACCCT
 GATGGTAATCCCTACTATGATTCTTTGGNCAGATGGGCATTTTACATTAAGAGAAAGA
 AACAAATTAATTTGGGNAAGCGGTATACATTTACTCTTCGAAGATGGACANNCTGCATG
 GACATGATAAAG

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_020117 unedited
 TGTCTATGGCCCCGCGGCCGCAATCTAGNGTCGAGTTTTTTTTTTTTTTTTTTCAGCATG
 ACCTCTATTTTATTGATTGATTGATGGATTGATTGAGACAGAGTTTCACAGCTGGAGTGC
 AATGGCACGGTTTCAGCTCACTGCAACCTCGGTCTCCAGGTTCAAGCGATTCTCCTGCC
 TCACACTCCCAAGCAGCTGGGATTACAGGTACCGCCACCATGCCAAGCTAATTTTGTGA
 TTTTATAGTAGACGGGGTTTACCAGTGTGGTCAGGCTGGTCTCAAACCTCCTGACCTCA
 GGTGACTGCCCACCTTGGCCTCCCAAGTGCTGGGATTAATAGGTGTGAGCCACCACAC
 CCGACCAGCATGACCTTTAAACACAATTGGAATTAAGACAAATTTAGTAAATGCAGATTT
 CTGGGGGGGAAGGGGGGAATCTTCTTTTAAATGCCCATTTTGTAGGTGAAATATA
 CTGCTTATAAACTATTGATATTAGGCTTGAAGAAGCCATTATTGGTTCTTAGTTGAATAA
 TTAAAGCTTTAAAAAGTCTTATAAAATGCAGGACCTATTTGTTCTTTATACAAAATCTT
 AGTAATTGAAGTCAAGTCAAAATATTCTCATTAGTTCTTTTAAATCATCATGAAGTTCTC
 TTCATTTAAAAAACAAGCTGCTAATTTACTACTTTTCTTTTTTAAAAAATACAGCT
 AACTCCATAAATGAATATACTATAAAAAGCTGTTAGGTCCACCTTACCCTTCATCCAAGA
 NTAAAGCACACCTCATAAAAAAGCCTACTGACACTTTTATGTTTCATCTTAAAAACAGAAC
 TCCTAGGAAATACACAATTTGTTTTTAAAAAGAGTTGGGCAAAACACTTTTCCTGCACCC
 CCAAGGAAGGCAAAAAATCTATTAGTCCAGGATCAG

Restriction Sites:

NotI-NotI

ACCN:

NM_020117

Insert Size:

4730 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:

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_020117.8](#), [NP_064502.8](#)

RefSeq Size: 4248 bp

RefSeq ORF: 3531 bp

Locus ID: 51520

UniProt ID: [Q9P2J5](#)

Cytogenetics: 5q32

Domains: tRNA-synt_1

Protein Families: Druggable Genome

Protein Pathways: Aminoacyl-tRNA biosynthesis, Valine, leucine and isoleucine biosynthesis

Gene Summary: This gene encodes a cytosolic leucine-tRNA synthetase, a member of the class I aminoacyl-tRNA synthetase family. The encoded enzyme catalyzes the ATP-dependent ligation of L-leucine to tRNA(Leu). It is found in the cytoplasm as part of a multisynthetase complex and interacts with the arginine tRNA synthetase through its C-terminal domain. A mutation in this gene was found in affected individuals with infantile liver failure syndrome 1. Alternatively spliced transcript variants of this gene have been observed. [provided by RefSeq, Dec 2015]
 Transcript Variant: This variant (1) represents the longest transcript and encodes the longest isoform (1). Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.