

## Product datasheet for **RC237485**

### LIAS (NM\_001278590) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** LIAS (NM\_001278590) Human Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** LIAS  
**Synonyms:** HGCLAS; HUSSY-01; LAS; LIP1; LS; PDHLD  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**ORF Nucleotide Sequence:** >RC237485 representing NM\_001278590  
**Red=Cloning site Blue=ORF Green=Tags(s)**

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGTCTCTACGCTGCGGGGATGCAGCCCGCACCTGGGGCCCCGGGTATTTGGGAGATATTTTTGCAGCC  
CAGTCAGACCGTTAAGCTCCTTGCCAGATAAAAAAAGGAACTCCTACAGAATGGACCAGACCTTCAAGA  
TTTTGTATCTGGTGATCTTGACAGACAGGAGCACCTGGGATGAATATAAAGGAAACCTAAACGCCAGAAA  
GGAGAAAAGGTTAAGACTACCTCCATGGCTAAAGACAGAGATCCCATGGGGAAAAATTACAATAAAGTGA  
AAAATACTTTGCGGAATTTAAATCTCCATACAGTATGTGAGGAAGCTCGATGTCCCAATATTGGAGAGTG  
TTGGGGAGGTGGAGAATATGCCACCGCCACAGCCACGATCATGTTGATGGGTGACACATGTACAAGAGGT  
TGCAGATTTTGTCTGTTAAGACTGCAAGAAATCCTCCTCCACTGGATGCCAGTGAGCCCTACAATACTG  
CAAAGGCAATTGCAGAATGGGGTCTGGATTATGTTGCTCCTGACATCTGTGGATCGAGATGATATGCCTGA  
TGGGGGAGCTGAACACATTGCAAAGACCGTATCATATTTAAAGGAAAGTAAGGTTCTGTATCCTCGGGCC  
AATTTTGATCAGTCCCTACGTGTACTGAAACATGCCAAGAAGGTTACGCCTGATGTTATTTCTAAAAACAT  
CTATAATGTTGGGTTTAGGCGAGAATGATGAGCAAGTATATGCAACAATGAAAGCACTTCGTGAGGCAGA  
TGTAGACTGCTTGACTTTAGGACAATATATGCAGCCAACAAGGCGTCACCTTAAGGTTGAAGAATATATT  
ACTCCTGAAAAATTCAAATACTGGGAAAAAGTAGGAAATGAACTTGGATTTCACTATACTGCAAGTGGCC  
CTTTGGTGCCTTTCATATAAAGCAGGTGAATTTTCTGAAAAATCTAGTGGCTAAAAGAAAAACAAA  
AGACCTC

**ACGGCT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC237485 representing NM\_001278590  
 Red=Cloning site Green=Tags(s)

MSLRCGDAARTLGPRVFGRYFCSPVRPLSSLPDKKKELLQNGPDLQDFVSGDLADRSTWDEYKGNLKRQK  
 GERLRLPPWLKTEIPMGKNYNKLNKNTLRNLNLHTVCEEARCPNIGECWGGGEYATATATIMLMDTCTRG  
 CRFCSVKTARNPPPLDASEPYNTAKAIAEWGLDYVVLTSVDRDDMPDGGAEHIAKTVSYLKESKVRDPR  
 NFDQSLRVLKHAKKVPDVI SKTSIMLGLGENDEQVYATMKALREADVDCLTLGQYMQPTRRHLKVEEYI  
 TPEKFKYWEKVGNELGFHYTASGPLVRSSYKAGEFFLKNLVAKRKTDL

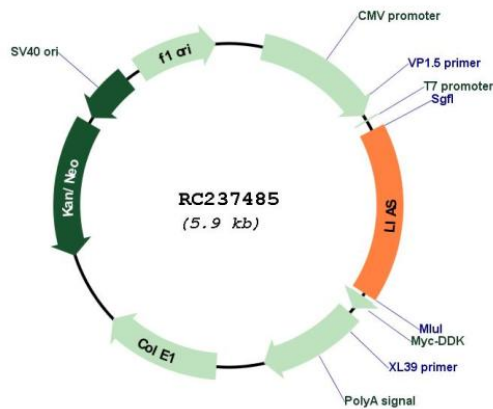
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM\_001278590

ORF Size: 987 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001278590.2</a>
<b>RefSeq Size:</b>	1635 bp
<b>RefSeq ORF:</b>	990 bp
<b>Locus ID:</b>	11019
<b>UniProt ID:</b>	<a href="#">O43766</a>
<b>Cytogenetics:</b>	4p14
<b>Protein Pathways:</b>	Lipoic acid metabolism, Metabolic pathways
<b>MW:</b>	37.6 kDa
<b>Gene Summary:</b>	The protein encoded by this gene belongs to the biotin and lipoic acid synthetases family. Localized in the mitochondrion, this iron-sulfur enzyme catalyzes the final step in the de novo pathway for the biosynthesis of lipoic acid, a potent antioxidant. The deficient expression of this enzyme has been linked to conditions such as diabetes, atherosclerosis and neonatal-onset epilepsy. Alternative splicing occurs at this locus, and several transcript variants encoding distinct isoforms have been identified. [provided by RefSeq, Aug 2020]