

## Product datasheet for **RG204939**

### LIAS (NM\_006859) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	LIAS (NM_006859) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	LIAS
Synonyms:	HGCLAS; HUSSY-01; LAS; LIP1; LS; PDHLD
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG204939 representing NM_006859 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTCTCTACGCTGCGGGGATGCAGCCCGACCCTGGGGCCCCGGGTATTTGGGAGATATTTTTGCAGCC  
CAGTCAGACCGTTAAGCTCCTTGCCAGATAAAAAAGGAACCTACAGAATGGACCAGACCTTCAAGA  
TTTTGTATCTGGTATCTTGCAGACAGGAGCACCTGGGATGAATATAAAGGAAACCTAAAACGCCAGAAA  
GGAGAAAGGTTAAGACTACCTCCATGGCTAAAGACAGAGATCCCATGGGAAAAATTACAATAAAGTGA  
AAAATACTTTGCGGAATTTAAATCTCCATACAGTATGTGAGGAAGCTCGATGTCCCAATATTGGAGAGTG  
TTGGGGAGGTGGAGAATATGCCACCGCCACAGCCACGATCATGTTGATGGGTGACACATGTACAAGAGGT  
TGCAGATTTTGTCTGTTAAGACTGCAAGAAATCCTCCTCCACTGGATGCCAGTGAGCCCTACAATACTG  
CAAAGGCAATTGCAGAATGGGGTCTGGATTATGTTGTCCTGACATCTGTGGATCGAGATGATATGCCTGA  
TGGGGGAGCTGAACACATTGCAAAGACCGTATCATATTTAAAGGAAAGGAATCCAAAAATCCTTGTGGAG  
TGTCTTACTCCTGATTTTCGAGGTGATCTCAAAGCAATAGAAAAAGTTGCTCTGTGAGGATTAGATGTGT  
ATGCACATAATGTAGAAACAGTCCCGGAATTACAGAGTAAGGTTTCGTGATCCTCGGGTCAATTTTGATCA  
GTCCCTACGTGTACTGAAACATGCCAAGAAGGTTTCAGCCTGATGTTATTTCTAAAAACATCTATAATGTTG  
GGTTTAGGCGAGAATGATGAGCAAGTATATGCAACAATGAAAGCACTTCGTGAGGCAGATGATAGACTGCT  
TGACTTTAGGACAATATATGCAGCCAACAAGCGTCACCTTAAGGTTGAAGAATATATTACTCTGAAAA  
ATTCAAATACTGGAAAAAGTAGAAATGAACTTGGATTTTCACTATACTGCAAGTGGCCCTTTGGTGCCT  
TCTTCATATAAGCAGGTGAATTTTCTGAAAAATCTAGTGGCTAAAAGAAAAACAAAAGACCTC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG204939 representing NM\_006859  
Red=Cloning site Green=Tags(s)

```
MSLRCGDAARTLGPRVFGRYFCSPVRPLSSLPDKKKELLQNGPDLQDFVSGDLADRSTWDEYKGNLKRQK
GERLRLPPWLKTEIPMGKNYNKLNKNTLRNLNLHTVCEEARCPNIGECWGGGEYATATATIMLMDTCTRG
CRFCSVKTARNPPPLDASEPYNTAKAIAEWGLDYVVLTSVDRDDMPDGGAEHIAKTVSYLKERNPKILVE
CLTPDFRGLKAIKVALSGLDVYAHNVETVPELQSKVRDPRVNFQSLRVLKHAKKVQPDVISKTSIML
GLGENDEQVYATMKALREADVDCLTLGQYMQPTRRRHLKVEEYITPEKFKYWEKVGNELGFHYTASGPLVR
SSYKAGEFFLKNLVAKRRTKDL
```

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_006859

**ORF Size:** 1116 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.

**RefSeq:** [NM\\_006859.1](#)

**RefSeq Size:** 1743 bp

**RefSeq ORF:** 1119 bp

**Locus ID:** 11019

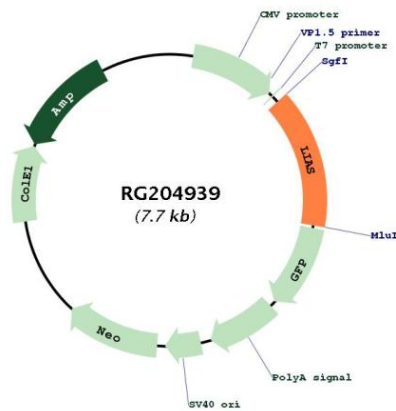
**UniProt ID:** [O43766](#)

**Cytogenetics:** 4p14

**Protein Pathways:** Lipoic acid metabolism, Metabolic pathways

**Gene Summary:** 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]

### Product images:



Circular map for RG204939