

Product datasheet for **RG237485**

LIAS (NM_001278590) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	LIAS (NM_001278590) 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:	>RG237485 representing NM_001278590. Blue=ORF Red=Cloning site Green=Tag(s)

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GCTCGTTTGTAGTAACCGTCAGAATTTGTAAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGTCTCTACGCTGCGGGGATGCAGCCCGACCCTGGGGCCCGGGTATTTGGGAGATATTTTGCAGC
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AGAGGTTGCAGATTTTGTCTGTAAAGACTGCAAGAAATCCTCCTCCACTGGATGCCAGTGAGCCCTAC
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ACTGCAAGTGGCCCTTTGGTGCGTCTTCATATAAAGCAGGTGAATTTTTCTGAAAAATCTAGTGGCT
AAAAGAAAAACAAAAGACCTC
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC
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Protein Sequence: >Peptide sequence encoded by RG237485
 Blue=ORF Red=Cloning site Green=Tag(s)

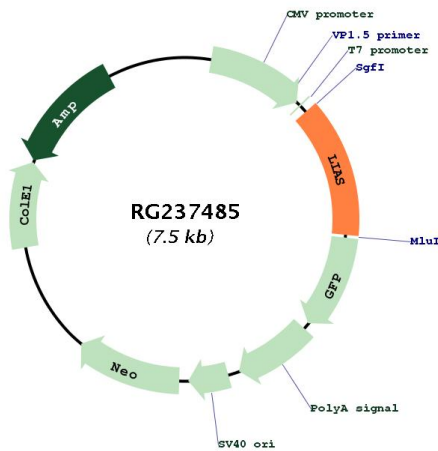
MSLRCGDAARTLGPRVFGRYFCSPVRPLSSLPDKKKELLQNGPDLQDFVSGDLADRSTWDEYKGNLKRQ
 KGERLRLPWLKTEIPMGKNYNKLNKTLRNLNLHTVCEEARCPNIGECWGGGEYATATATIMLMDTCT
 RGCRCFSVKTARNPPPLDASEPYNTAKAIAEWGLDYVVLTSVDRDMPDGGAEHIAKTVSYLKESKVRD
 PRANFDQSLRVLKHAKKVQPDVLSKTSIMLGLGENDEQVYATMKALREADVDCLTLGQYMQPTRRHLKV
 EEYITPEKFKYWEKVGNELGFHYTASGPLVRSSYKAGEFFLKNLVAKRRTKDL
 TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGGEGTPEQGRMTNKMKSTKGALTFSPYLLSHV
 MGYGFYHFGTYPSTYENPFLHAINNGGYTNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED
 SVIFTDKIIRS NATVEHLHPMGDNDLDGSFTRTFSLRDGGYSSVVD SHMHFKSAIHPSILQNGGPMFA
 FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001278590

ORF Size:	987 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).
RefSeq:	NM_001278590.2
RefSeq Size:	1635 bp
RefSeq ORF:	990 bp
Locus ID:	11019
UniProt ID:	O43766
Cytogenetics:	4p14
Protein Pathways:	Lipoic acid metabolism, Metabolic pathways
MW:	37.6 kDa
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]