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Product datasheet for RG221843

LIAS (NM_194451) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	LIAS (NM_194451) 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:	>RG221843 representing NM_194451 Red=Cloning site Blue=ORF Green=Tags(s) TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCCGCGATCGCC ATGTCTCTACGCTGCGGGGATGCAGCCCGCACCCTGGGGCCCCGGGTATTTGGGAGATATTTTTGCAGCC CAGTCAGACCGTTAAGCTCCTTGCCAGATAAAAAAAAGGAACTCCTACAGAATGGACCAGACCTTCAAGA TTTTGTATCTGGTGATCTTGCAGACAGGAGCACCTGGGATGAATATAAAGGAAACCTAAAACGCCAGAAA GGAGAAAGGTTAAGACTACCTCCATGGCTAAAGACAGAGATTCCCATGGGGAAAAATTACAATAAACTGA AAAATACTTTGCGGAATTTAAATCTCCATACAGTATGTGAGGAAGCTCGATGTCCCAATATTGGAGAGTG TTGGGGAGGTGGAGAATATGCCACCGCCACAGCCACGATCATGTTGATGGGTGACACATGTACAAGAGGT TGCAGATTTTGTTCTGTTAAGACTGCAAGAAATCCTCCTCCACTGGATGCCAGTGAGCCCTACAATACTG CAAAGGCAATTGCAGAATGGGGTCTGGATTATGTTGTCCTGACATCTGTGGATCGAGATGATATGCCTGA TGGGGGAGCTGAACACATTGCAAAGACCGTATCATATTTAAAGGAAAGGAATCCAAAAATCCTTGTGGAG TGTCTTACTCCTGATTTTCGAGGTGATCTCAAAGCAATAGAAAAAGTTGCTCTGTCAGGATTAGATGTGT ATGCACATAATGTAGAAACAGTCCCGGAATTACAGAGTAAGGTTCGTGATCCTCGGGCCAATTTTGATCA GTCCCTACGTGTACTGAAACATGCCAAGAAGGTTCAGCCTGATGTTATTTCTAAAACATCTATAATGTTG GGTTTAGGCGAGAATGATGAGCAAGTATATGCAACAATGAAAGCACTTCGTGAGGCAGATGTAGACTGCT TGACTTTAGGACAATATATGCAGCCAACAAGGCGTCACCTTAAGGTGAATTTTTCC ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

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Protein Sequence:

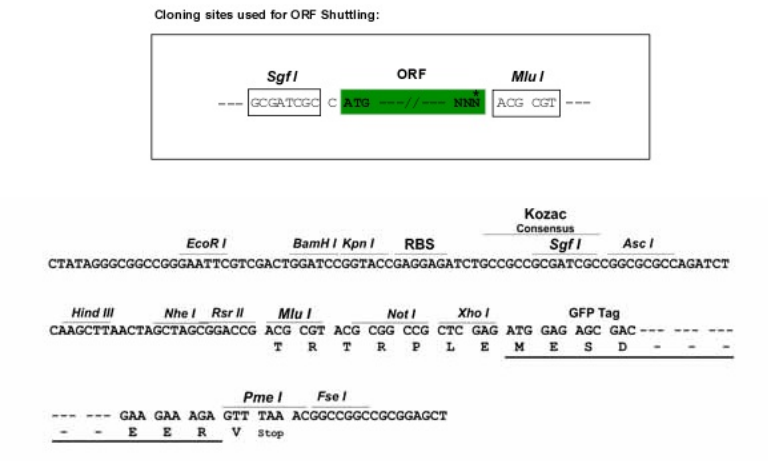
>RG221843 representing NM_194451
Red=Cloning site Green=Tags(s)

MSLRCGDAARTLGPRVFGRYFCSPVRPLSSLPDKKKELLQNGPDLQDFVSGDLADRSTWDEYKGNLKRQK
GERLRLPPWLKTEIPMGKNYNKLKNTLRNLNLHTVCEEARCPNIGECWGGGEYATATATIMLMGDTCTRG
CRFCSVKTARNPPPLDASEPYNTAKAIAEWGLDYVVLTSVDRDDMPDGGAEHIAKTVSYLKERNPKILVE
CLTPDFRGDLKAIEKVALSGLDVYAHNVETVPELQSKVRDPRANFDQSLRVLKHAKKVQPDVISKTSIML
GLGENDEQVYATMKALREADVDCLTLGQYMQPTRRHLKVNFS

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_194451

ORF Size: 966 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_194451.3

RefSeq Size: 1631 bp

RefSeq ORF: 969 bp

Locus ID: 11019

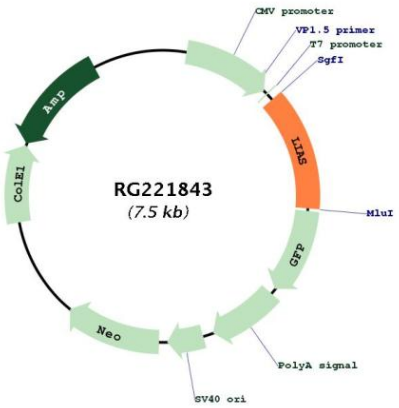
UniProt ID: O43766

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 RG221843