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# Product datasheet for RC235592

## LIAS (NM_001278592) Human Tagged ORF Clone

### Product data:

| | |
|---|---|
| **Product Type:** | Expression Plasmids |
| **Product Name:** | LIAS (NM_001278592) 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:** | >RC235592 representing NM_001278592<br>Red=Cloning site Blue=ORF Green=Tags(s)<br><br>TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC<br>GCCGCGATCGCC<br><br>ATGTCTCTACGCTGCGGGGATGCAGCCCGCACCCTGGGGCCCCGGGTATTTGGGAGATATTTTTGCAGCC<br>CAGTCAGACCGTTAAGCTCCTTGCCAGATAAAAAAAAGGAACTCCTACAGAATGGACCAGACCTTCAAGA<br>TTTTGTATCTGGTGATCTTGCAGACAGGAGCACCTGGGATGAATATAAAGGAAACCTAAAACGCCAGAAA<br>GGAGAAAGGTATGTGAGGAAGCTCGATGTCCCAATATTGGAGAGTGTTGGGGAGGTGGAGAATATGCCAC<br>CGCCACAGCCACGATCATGG<br><br>ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT<br>ACAAGGATGACGACGATAAGGTTTAA |
| **Protein Sequence:** | >RC235592 representing NM_001278592<br>Red=Cloning site Green=Tags(s)<br><br>MSLRCGDAARTLGPRVFGRYFCSPVRPLSSLPDKKKELLQNGPDLQDFVSGDLADRSTWDEYKGNLKRQK<br>GERYVRKLDVPILESVGEVENMPPPQPRSW<br><br>TRTRPLEQKLISEEDLAANDILDYKDDDDKV |
| **Restriction Sites:** | SgfI-MluI |

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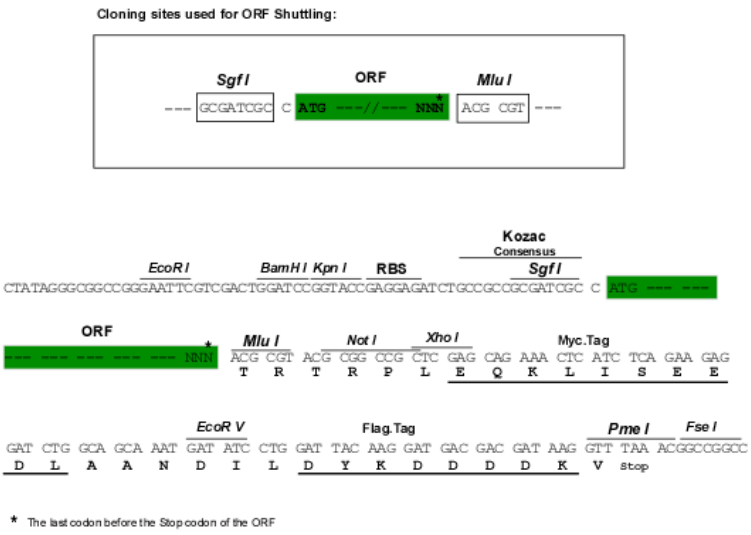
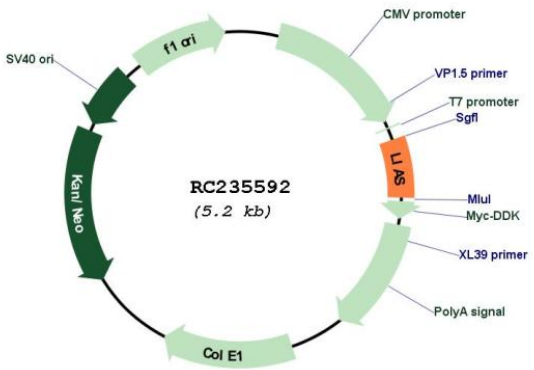
**Cloning Scheme:**




**Plasmid Map:**




**ACCN:** NM_001278592

**ORF Size:** 300 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.<br>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.<br>3. Close the tube and incubate for 10 minutes at room temperature.<br>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.<br>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_001278592.1, NP_001265521.1 |
| **RefSeq Size:** | 610 bp |
| **RefSeq ORF:** | 303 bp |
| **Locus ID:** | 11019 |
| **UniProt ID:** | O43766 |
| **Cytogenetics:** | 4p14 |
| **Protein Pathways:** | Lipoic acid metabolism, Metabolic pathways |
| **MW:** | 11.8 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] |