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# Product datasheet for RG236747

## LRAT (NM_001301645) Human Tagged ORF Clone

### Product data:

| | |
|---|---|
| **Product Type:** | Expression Plasmids |
| **Product Name:** | LRAT (NM_001301645) Human Tagged ORF Clone |
| **Tag:** | TurboGFP |
| **Symbol:** | LRAT |
| **Synonyms:** | LCA14 |
| **Mammalian Cell Selection:** | Neomycin |
| **Vector:** | pCMV6-AC-GFP (PS100010) |
| **E. coli Selection:** | Ampicillin (100 ug/mL) |

**ORF Nucleotide Sequence:**

>RG236747 representing NM_001301645.
Blue=ORF Red=Cloning site Green=Tag(s)

GCTCGTTTAGTGAACCGTCAGAATTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGAAGAACCCCATGCTGGAGGTGGTGTCTTTACTACTGGAGAAGCTGCTCCTCATCTCCAACTTCACG
CTCTTTAGTTCGGGCGCCGCGGGCGAAGACAAAGGGAGGAACAGTTTTTATGAAACCAGCTCTTTCCAC
CGAGGCGACGTGCTGGAGGTGCCCCGGACCCACCTGACCCACTATGGCATCTACCTAGGAGACAACCGT
GTTGCCCACATGATGCCCGACATCCTGTTGGCCCTGACAGACGACATGGGGCGCACGCAGAAGGTGGTC
TCCAACAAGCGTCTCATCCTGGGCGTTATTGTCAAAGTGGCCAGCATCCGCGTGGACACAGTGGAGGAC
TTCGCCTACGGAGCTAACATCCTGGTCAATCACCTGGACGAGTCCCTCCAGAAAAAGGCACTGCTCAAC
GAGGAGGTGGCGCGGAGGGCTGAAAAGCTGCTGGGCTTTACCCCCTACAGCCTGCTGTGGAACAACTGC
GAGCACTTCGTGACCTACTGCAGATATGGCACCCCGATCAGTCCCCAGTCCGACAAGTTTTGTGAGACT
GTGAAGATAATTATTCGTGATCAGAGAAGTGTTCTTGCTTCAGCAGTCTTGGGATTGGCGTCTATAGTC
TGTACGGGCTTGGTATCATACACTACCCTTCCTGCAATTTTTATTCCATTCTTCCTATGGATGGCTGGC
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC



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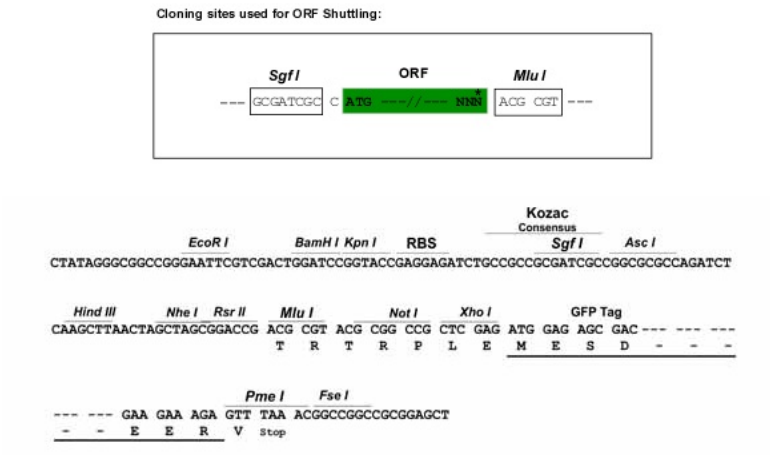
**Protein Sequence:**

>Peptide sequence encoded by RG236747
Blue=ORF Red=Cloning site Green=Tag(s)

MKNPMLEVVSLLLEKLLLISNFTLFSSGAAGEDKGRNSFYETSSFHRGDVLEVPRTHLTHYGIYLGDNR
VAHMMPDILLALTDDMGRTQKVVSNKRLILGVIVKVASIRVDTVEDFAYGANILVNHLDESLQKKALLN
EEVARRAEKLLGFTPYSLLWNNCEHFVTYCRYGTPISPQSDKFCETVKIIIRDQRSVLASAVLGLASIV
CTGLVSYTTLPAIFIPFFLWMAG
TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGGEGTPEQGRMTNKMKSTKGALTFSPYLLSHV
MGYGFYHFGTYPSGYENPFLHAINNGGYTNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED
SVIFTDKIIRSNATVEHLHPMGDNDLDGSFTRTFSLRDGGYYSSVVDSHMHFKSAIHPSILQNGGPMFA
FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**




**ACCN:** NM_001301645

**ORF Size:** 690 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).

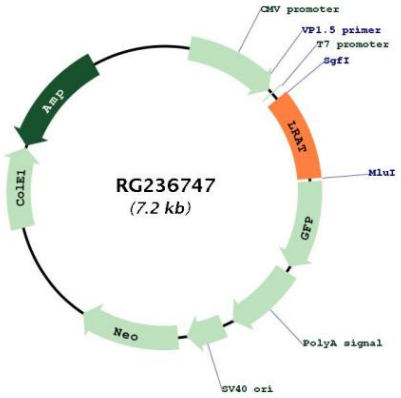
**RefSeq:** NM_001301645.1, NP_001288574.1

**RefSeq Size:** 4735 bp

**RefSeq ORF:** 693 bp

| | |
|---|---|
| **Locus ID:** | 9227 |
| **UniProt ID:** | O95237 |
| **Cytogenetics:** | 4q32.1 |
| **Protein Families:** | Druggable Genome, Transmembrane |
| **Protein Pathways:** | Retinol metabolism |
| **MW:** | 25.7 kDa |
| **Gene Summary:** | The protein encoded by this gene localizes to the endoplasmic reticulum, where it catalyzes the esterification of all-trans-retinol into all-trans-retinyl ester. This reaction is an important step in vitamin A metabolism in the visual system. Mutations in this gene have been associated with early-onset severe retinal dystrophy and Leber congenital amaurosis 14. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Aug 2014] |

## Product images:




Circular map for RG236747