

Product datasheet for **RG210875**

LONP2 (NM_031490) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	LONP2 (NM_031490) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	LONP2
Synonyms:	LONP; LONPL; PLON; PSLON
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG210875 representing NM_031490
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGTCATCAGTGAGCCCCATCCAGATCCCCAGTCGCCTCCCGCTGCTGCTCACCCACGAGGGCGTCTGCTG
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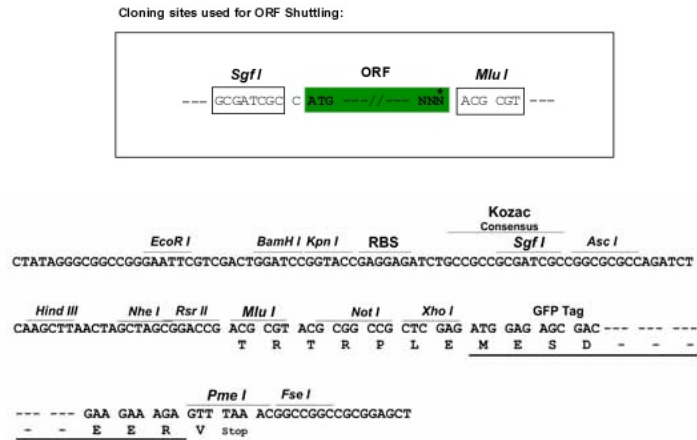
ACGCGTACGCGGCCGCTCGAG – GFP Tag – **GTTTAA**

Protein Sequence: >RG210875 representing NM_031490
 Red=Cloning site Green=Tags(s)

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MSSVSPIQIPSRLPLLLTHEGVLLPGSTMRTSVDSARNLQLVRSRLLKGTSLQSTILGVIPNTPDPASDA
QDLPLHRIGTAALAVQVVGSNWPKPHYTLLITGLCRFQIVQVLKEKYPPIAEVEQLDRLEEFNPTCKMR
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FKMTIPLLVQRQIEGLKLLQKTRKPKQDDDKRVIAIRPIRRITHISGTLEDEDEDEDNDDIVMLEKKIRTS
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FHALKDILGPPMYEMEVSRQLSQPGVAIGLAWTPLGGEIMFVEASRMDGEGQLTLTGQLGDMKESAHLA
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ITLRLGLVLPVGGIKDKVLAHRAGLKQVIIPRRNEKDLEGIPGNVRQDL SFVTASCLDEVLNAAFDDGGFT
VKTRPGLLNSKL
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TRTRPLE - GFP Tag - V

Restriction Sites: Sgfl-MluI

Cloning Scheme:


ACCN: NM_031490

ORF Size: 2556 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_031490.5](#)

RefSeq Size: 4342 bp

RefSeq ORF: 2559 bp

Locus ID: 83752

UniProt ID: [Q86WA8](#)

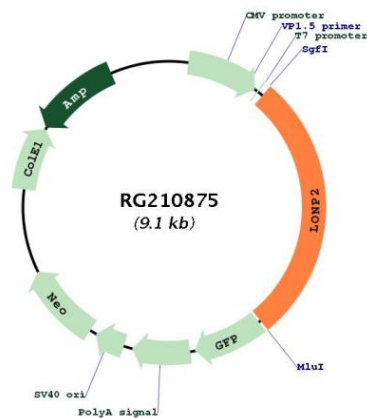
Cytogenetics: 16q12.1

Domains: Lon_C, AAA, AAA

Protein Families: Druggable Genome, Protease

Gene Summary: In human, peroxisomes function primarily to catalyze fatty acid beta-oxidation and, as a by-product, produce hydrogen peroxide and superoxide. The protein encoded by this gene is an ATP-dependent protease that likely plays a role in maintaining overall peroxisome homeostasis as well as proteolytically degrading peroxisomal proteins damaged by oxidation. The protein has an N-terminal Lon N substrate recognition domain, an ATPase domain, a proteolytic domain, and, in some isoforms, a C-terminal peroxisome targeting sequence. Alternative splicing results in multiple transcript variants encoding distinct isoforms. [provided by RefSeq, Jan 2017]

Product images:



Circular map for RG210875