

Product datasheet for **RG224381**

LAR (PTPRF) (NM_002840) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	LAR (PTPRF) (NM_002840) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PTPRF
Synonyms:	BNAH2; LAR
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG224381 representing NM_002840 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCCCTGAGCCAGCCCCAGGGAGGACGATGGTGCCCTTGTGCCTGCACTGGTGATGCTTGGTTTGG
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TTCACCGCCGTGGGCGATGGCCCTCCCAGCCCCACCATCCAGGTCAAGACGCAGCAGGGAGTGCCTGCC
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ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG224381 representing NM_002840
 Red=Cloning site Green=Tags(s)

MAPEPAPGRMTMPLVPALVMLGLVAGAHGDSKPVFIKVPEDQTGLSGGVASFVCQATGEPKPRITWMKKG
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 VCLQPIRGVEGSDYINASFLDGYRQKAYIATQGPLAESTEDFWRMLWEHNSTIIIVMLTKLREMGREKCH
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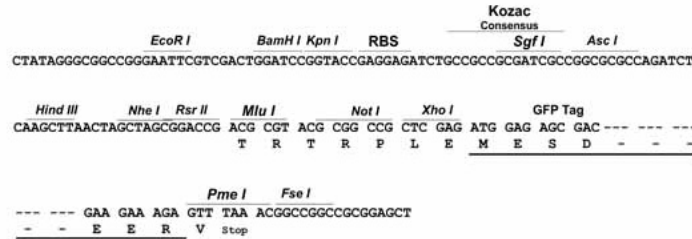
TRTRPLE – GFP Tag – V

Restriction Sites:

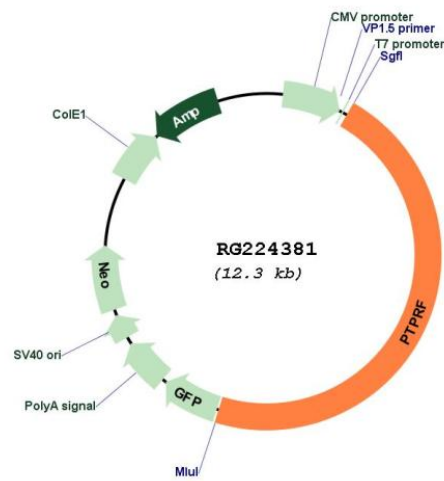
SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM_002840
 ORF Size: 5721 bp

OTI Disclaimer:	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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</p>
OTI Annotation:	<p>This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.</p>
Components:	<p>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).</p>
Reconstitution Method:	<ol style="list-style-type: none">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_002840.5
RefSeq Size:	7733 bp
RefSeq ORF:	5724 bp
Locus ID:	5792
UniProt ID:	P10586
Cytogenetics:	1p34.2
Domains:	Y_phosphatase, ig, PTPc_motif, IGc2, IG, FN3
Protein Families:	Druggable Genome, Phosphatase, Transmembrane
Protein Pathways:	Adherens junction, Cell adhesion molecules (CAMs), Insulin signaling pathway

Gene Summary:

The protein encoded by this gene is a member of the protein tyrosine phosphatase (PTP) family. PTPs are known to be signaling molecules that regulate a variety of cellular processes including cell growth, differentiation, mitotic cycle, and oncogenic transformation. This PTP possesses an extracellular region, a single transmembrane region, and two tandem intracytoplasmic catalytic domains, and thus represents a receptor-type PTP. The extracellular region contains three Ig-like domains, and nine non-Ig like domains similar to that of neural-cell adhesion molecule. This PTP was shown to function in the regulation of epithelial cell-cell contacts at adherents junctions, as well as in the control of beta-catenin signaling. An increased expression level of this protein was found in the insulin-responsive tissue of obese, insulin-resistant individuals, and may contribute to the pathogenesis of insulin resistance. Two alternatively spliced transcript variants of this gene, which encode distinct proteins, have been reported. [provided by RefSeq, Jul 2008]