

## Product datasheet for **RG222535**

### LEPRE1 (P3H1) (NM\_022356) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	LEPRE1 (P3H1) (NM_022356) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	LEPRE1
Synonyms:	GROS1; LEPRE1; OI8
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG222535 representing NM\_022356  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGCGGTACGCGGTTGAAGCTGCTGACCACACTGCTGGCTGTCGTGGCCGCTGCCTCCCAAGCCGAGG  
 TCGAGTCCGAGGCAGGATGGGGCATGGTGACGCCTGATCTGCTCTTCGCCGAGGGGACCGCAGCCTACGC  
 CGCGGGGACTGGCCCGGGTGGTCTGAGCATGGAACGGGCGCTGCGCTCCCGGCAGCCCTCCGCGCC  
 CTTGCGCTGCGCTGCCGCACCCAGTGTGCCGCCGACTTCCCGTGGGAGCTGGACCCGACTGGTCCCCCA  
 GCCCGGCCAGGCCTCGGGCGCCGCCCTGCGGACCTGAGCTTCTTCGGGGGCTTCTGCGTCGCGC  
 TGCCTGCCTGCGCCGCTGCCTCGGGCCGCCGCCCTGCTCAGCGAAGAGATGGAGCTGGAGTTC  
 CGCAAGCGGAGCCCTACAACACTGCAGGTGCCTACTTCAAGATCAACAAGTTGGAGAAAGCTGTTG  
 CTGCGACACACACCTTCTCGTGGCAATCCTGAGCACATGAAATGCAGCAGAACCTAGACTATTACCA  
 AACCATGTCTGGAGTGAAGGAGCGGACTTCAAGGATCTTGAGACTCAACCCATATGCAAGAATTCGA  
 CTGGGAGTGCAGCTCTACTCAGAGGAACAGCCACAGGAAGCTGTGCCCCACTAGAGGCGGCGCTGCAAG  
 AATACTTTGTGGCCTATGAGGAGTGCCGTGCCCTCTGCGAAGGGCCCTATGACTACGATGGCTACAAC  
 CCTTGAGTACAACGCTGACCTCTTCCAGGCCATCACAGATCATTACATCCAGGTCCTCAACTGTAAGCAG  
 AACTGTGTACGGAGCTTGCTTCCACCCCAAGTCGAGAGAAGCCCTTTGAAGACTTCTCCCATCGCATT  
 ATAATTATCTGCAGTTTGCTACTATAACATTGGGAATTATACACAGGCTGTTGAATGTGCCAAGACCTA  
 TCTTCTCTTCCCAATGACGAGGTGATGAACAAAATTTGGCCTATTATGCAGCTATGCTTGGAGAA  
 GAACACACCAGATCCATCGCCCCCGTGAAGTCCCAAGGAGTACCGACAGCGAAGCCTACTGAAAAAG  
 AACTGCTTTTCTCGCTTATGATGTTTTTGAATTCCCTTTGTGGATCCGGATTTCATGGACTCCAGAAGA  
 AGTGATCCCAAGAGATTGCAAGAGAAAACAGAAGTCAGAACGGGAAACAGCCGTACGCATCTCCAGGAG  
 ATTGGAAACCTTATGAAGAAAATCGAGACCCTTGTGAAGAGAAGACCAAGGAGTCACTGGATGTGAGCA  
 GACTGACCCGGGAAGGTGGCCCCCTGCTGTATGAAGGCATCAGTCTACCATGAACTCCAAACTCCTGAA  
 TGGTTCAGCGGGTGGTATGACGGCGTAATCTCTGACCACGAGTGTGAGGAGCTGCAGAGACTGACC  
 AATGTGGCAGCAACCTCAGGAGATGGCTACCGGGTCCAGCTCCCCACATACTCCCAATGAAAAGTTCT  
 ATGGTGTCACTGTCTTCAAAGCCCTCAAGCTGGGGCAAGAAGGCAAAGTTCTCTGCAGAGTGCCACCT  
 GTACTACAACGTGACGGAGAAGGTGCGGCATCATAGAGTCTACTTCCGCCTGGATACGCCCCCTAC  
 TTTTCTACTCTCATCTGGTGTGCCGACTGCCATCGAAGAGGTCCAGGCAGAGGAAGGATGATAGTC  
 ATCCAGTCCACGTGGACAACCTGCATCCTGAATGCCGAGACCCTCGTGTGTGTTCAAAGAGCCCCAGCCTA  
 CACCTTCCGCGACTACAGCGCCATCCTTACCTAAATGGGGACTTCGATGGCGGAAACTTTTATTTCACT  
 GAACTGGATGCCAAGACCGTGACGGCAGAGGTGCAGCCTCAGTGTGGAAGAGCCGTGGGATTCTCTTCAG  
 GCACTGAAAACCCACATGGAGTGAAGGCTGTACCAGGGGGCAGCGCTGTGCCATCGCCCTGTGGTTTAC  
 CCTGGACCCTCGACACAGCGAGCGGGACAGGTTGACGGCAGATGACCTGGTGAAGATGCTCTTCAGCCCA  
 GAAGAGATGGACCTCTCCAGGAGCAGCCCTGGATGCCAGCAGGGCCCCCGAACCTGCACAAGAGT  
 CTCTCTCAGGCAGTGAATCGAAGCCCAAGGATGAGCTA

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG222535 representing NM\_022356  
 Red=Cloning site Green=Tags(s)

MAVRALKLLTLLAVVAAASQAEVESEAGWGMVTPDLLFAEGTAAYARGDWPGVLSMERALRSRAALRALRLRCRTQCAADFPWELDPDWSPSPAQASGAAALRDL SFFGGLL RRAACLRRCLGPPAAHSLSEEMELEFRKRSPYNYLQVAYFKINKLEKAVAAAHTFFVGNPEHMEMQONLDYYQTM SGVKEADFKDLETQPHMQEFR LGVRLYSEEQPQEAVPHLEAALQEYFVAYEECRALCEGPDYDGYNYLEYNADLFQAITDHYIQVLNCKQNCVTELA SHPSREKPFEDFLPSHYNYLQFAYYNI GNYTQAVECAKTYLLFFPNDEV MNQNLAYYAAMLGE EHTRSIGPRESAKEYRQRSLLEKELLFFAYDVFGIPFVDPDSWTPPEEVIPKRLQE KQKSERETA VRISQEIGNLMKEIETLVEEKT KESLDVSRLTREGGPLLYEGISLTMNSKLLNGSQRVVMDGVISDHECQELQRLTNVAATSGDGYRGQTS PHTPNEK FYGVT VFKALKL GQEGK VPLQSAHL YYNVTEK VRR IIESYFRLDTPLYFSYSHLVCRTAIEEVQAERKDDSHPVHVDNCILNAETLVCVKEPPAYTFRDYSAILYLN GDFDGGNFYFTELDAKT VTAEVQPQCGRVGFSSGTENPHGVKAVTRGQRCAIALWFTLDRHSERDRVQADDLVKMLFSP EEMDLSQEQPLDAQQGPPEPAQESLSGSESKPKDEL

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shutting:



**ACCN:** NM\_022356

**ORF Size:** 2208 bp

**OTI Disclaimer:** 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](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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\\_022356.2](#), [NP\\_071751.2](#)

**RefSeq Size:** 2993 bp

**RefSeq ORF:** 2211 bp

**Locus ID:** 64175

**UniProt ID:** [Q32P28](#)

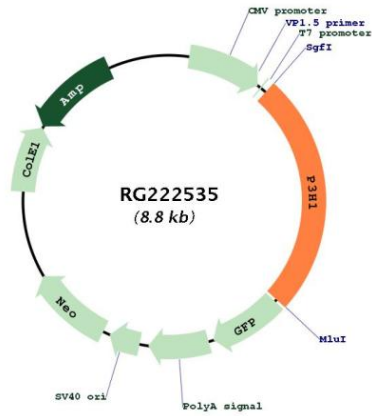
**Cytogenetics:** 1p34.2

**Domains:** 2OG-Fell\_Oxy, P4Hc

**Protein Families:** Secreted Protein

**Gene Summary:** This gene encodes an enzyme that is a member of the collagen prolyl hydroxylase family. These enzymes are localized to the endoplasmic reticulum and their activity is required for proper collagen synthesis and assembly. Mutations in this gene are associated with osteogenesis imperfecta type VIII. Three alternatively spliced transcript variants encoding different isoforms have been described. Other variants may exist, but their biological validity has not been determined. [provided by RefSeq, Aug 2011]

Product images:



Circular map for RG222535