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Product datasheet for RC222535

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:	Myc-DDK
Symbol:	LEPRE1
Synonyms:	GROS1; LEPRE1; OI8
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC222535 representing NM_022356
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCGGTACGCGCGTTGAAGCTGCTGACCACACTGCTGGCTGTCGTGGCCGCTGCCTCCCAAGCCGAGG
TCGAGTCCGAGGCAGGATGGGGCATGGTGACGCCTGATCTGCTCTTCGCCGAGGGGACCGCAGCCTACGC
GCGCGGGGACTGGCCCGGGGTGGTCCTGAGCATGGAACGGGCGCTGCGCTCCCGGGCAGCCCTCCGCGCC
CTTCGCCTGCGCTGCCGCACCCAGTGTGCCGCCGACTTCCCGTGGGAGCTGGACCCCGACTGGTCCCCCA
GCCCGGCCCAGGCCTCGGGCGCCGCCGCCCTGCGCGACCTGAGCTTCTTCGGGGGCCTTCTGCGTCGCGC
TGCCTGCCTGCGCCGCTGCCTCGGGCCGCCGGCCGCCCACTCGCTCAGCGAAGAGATGGAGCTGGAGTTC
CGCAAGCGGAGCCCCTACAACTACCTGCAGGTCGCCTACTTCAAGATCAACAAGTTGGAGAAAGCTGTTG
CTGCAGCACACACCTTCTTCGTGGGCAATCCTGAGCACATGGAAATGCAGCAGAACCTAGACTATTACCA
AACCATGTCTGGAGTGAAGGAGGCCGACTTCAAGGATCTTGAGACTCAACCCCATATGCAAGAATTTCGA
CTGGGAGTGCGACTCTACTCAGAGGAACAGCCACAGGAAGCTGTGCCCCACCTAGAGGCGGCGCTGCAAG
AATACTTTGTGGCCTATGAGGAGTGCCGTGCCCTCTGCGAAGGGCCCTATGACTACGATGGCTACAACTA
CCTTGAGTACAACGCTGACCTCTTCCAGGCCATCACAGATCATTACATCCAGGTCCTCAACTGTAAGCAG
AACTGTGTCACGGAGCTTGCTTCCCACCCAAGTCGAGAGAAGCCCTTTGAAGACTTCCTCCCATCGCATT
ATAATTATCTGCAGTTTGCCTACTATAACATTGGGAATTATACACAGGCTGTTGAATGTGCCAAGACCTA
TCTTCTCTTCTTCCCCAATGACGAGGTGATGAACCAAAATTTGGCCTATTATGCAGCTATGCTTGGAGAA
GAACACACCAGATCCATCGGCCCCCGTGAGAGTGCCAAGGAGTACCGACAGCGAAGCCTACTGGAAAAAG
AACTGCTTTTCTTCGCTTATGATGTTTTTGGAATTCCCTTTGTGGATCCGGATTCATGGACTCCAGAAGA
AGTGATTCCCAAGAGATTGCAAGAGAAACAGAAGTCAGAACGGGAAACAGCCGTACGCATCTCCCAGGAG
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GTACTACAACGTGACGGAGAAGGTGCGGCGCATCATAGAGTCCTACTTCCGCCTGGATACGCCCCTCTAC
TTTTCCTACTCTCATCTGGTGTGCCGCACTGCCATCGAAGAGGTCCAGGCAGAGAGGAAGGATGATAGTC
ATCCAGTCCACGTGGACAACTGCATCCTGAATGCCGAGACCCTCGTGTGTGTCAAAGAGCCCCCAGCCTA
CACCTTCCGCGACTACAGCGCCATCCTTTACCTAAATGGGGACTTCGATGGCGGAAACTTTTATTTCACT
GAACTGGATGCCAAGACCGTGACGGCAGAGGTGCAGCCTCAGTGTGGAAGAGCCGTGGGATTCTCTTCAG
GCACTGAAAACCCACATGGAGTGAAGGCTGTCACCAGGGGGCAGCGCTGTGCCATCGCCCTGTGGTTCAC
CCTGGACCCTCGACACAGCGAGCGGGACAGGGTGCAGGCAGATGACCTGGTGAAGATGCTCTTCAGCCCA
GAAGAGATGGACCTCTCCCAGGAGCAGCCCCTGGATGCCCAGCAGGGCCCCCCCGAACCTGCACAAGAGT
CTCTCTCAGGCAGTGAATCGAAGCCCAAGGATGAGCTA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC222535 representing NM_022356
Red=Cloning site Green=Tags(s)

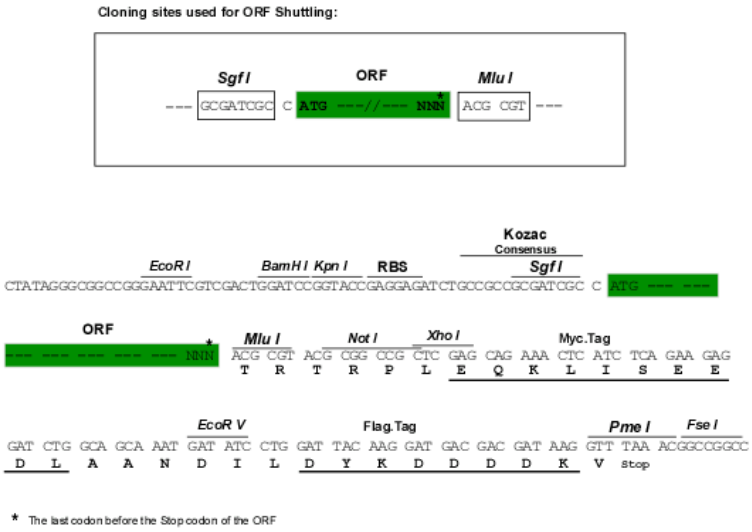
MAVRALKLLTTLLAVVAAASQAEVESEAGWGMVTPDLLFAEGTAAYARGDWPGVVLSMERALRSRAALRA
LRLRCRTQCAADFPWELDPDWSPSPAQASGAAALRDLSFFGGLLRRAACLRRCLGPPAAHSLSEEMELEF
RKRSPYNYLQVAYFKINKLEKAVAAAHTFFVGNPEHMEMQQNLDYYQTMSGVKEADFKDLETQPHMQEFR
LGVRLYSEEQPQEAVPHLEAALQEYFVAYEECRALCEGPYDYDGYNYLEYNADLFQAITDHYIQVLNCKQ
NCVTELASHPSREKPFEDFLPSHYNYLQFAYYNIGNYTQAVECAKTYLLFFPNDEVMNQNLAYYAAMLGE
EHTRSIGPRESAKEYRQRSLLEKELLFFAYDVFGIPFVDPDSWTPEEVIPKRLQEKQKSERETAVRISQE
IGNLMKEIETLVEEKTKESLDVSRLTREGGPLLYEGISLTMNSKLLNGSQRVVMDGVISDHECQELQRLT
NVAATSGDGYRGQTSPHTPNEKFYGVTVFKALKLGQEGKVPLQSAHLYYNVTEKVRRIIESYFRLDTPLY
FSYSHLVCRTAIEEVQAERKDDSHPVHVDNCILNAETLVCVKEPPAYTFRDYSAILYLNGDFDGGNFYFT
ELDAKTVTAEVQPQCGRAVGFSSGTENPHGVKAVTRGQRCAIALWFTLDPRHSERDRVQADDLVKMLFSP
EEMDLSQEQPLDAQQGPPEPAQESLSGSESKPKDEL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg2737_f05.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

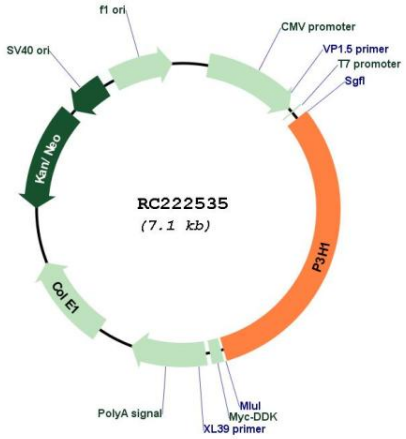


ACCN: NM_022356

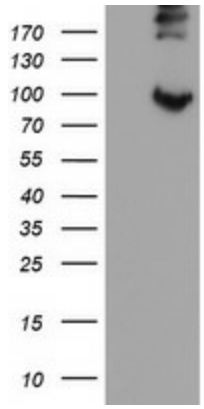
ORF Size: 2208 bp

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 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_022356.3
RefSeq Size:	2993 bp
RefSeq ORF:	2211 bp
Locus ID:	64175
UniProt ID:	Q32P28
Cytogenetics:	1p34.2
Domains:	2OG-FeII_Oxy, P4Hc
Protein Families:	Secreted Protein
MW:	83.2 kDa
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]

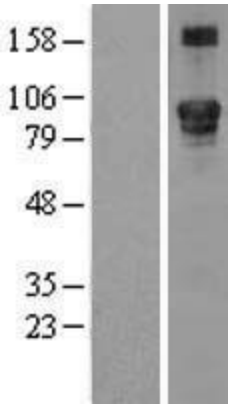
Product images:



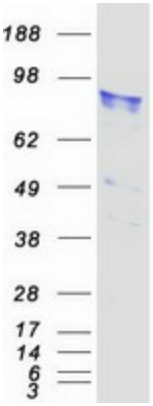
Circular map for RC222535



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY LEPRE1 (Cat# RC222535, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-LEPRE1(Cat# [TA505088]). Positive lysates [LY411682] (100ug) and [LC411682] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY411682]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC222535 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified P3H1 protein (Cat# [TP322535]). The protein was produced from HEK293T cells transfected with P3H1 cDNA clone (Cat# RC222535) using MegaTran 2.0 (Cat# [TT210002]).