

Product datasheet for **MR208685**

Leprel2 (BC003726) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Leprel2 (BC003726) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Leprel2
Synonyms:	BC016431; Grcb; Leprel2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR208685 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATCGGGGAAGACATGGCTAAGTACAGAAGGATGTCTGCAATCCGACCCAGAGCTCCGGGACCTGGTGA
 CGCCCCTATACTGGGAGCTTATGACACTGGCCTGGAGCTTCTGGAGCAACGGGAGGAGCAGCACTGGCTCT
 ACCCCAAC TAGAGGAGGCCCTGCAGGGAGCCTGGCCACATGGAGAGCTGCCGTGCTGCCTGTGAGGGG
 CCTGAGGAGCACCAAGGGGCTGAAGAAGAGGGAGAAGGGAGCCAGGGAGGCTGTATGAAGCCATTGCAG
 GACTGGATACGGGTTCTGCAGTGCAGGCAGCACTGTGTGGCAGACACGGCCACCCGCTCCTGGTCGAG
 CTTCCCTGTCCAGGACTTCTCCTCAGCCAGCTGAGACGGCTGCACGAGGCGTATGCTCAGTGGGGAAC
 ATGTCTCAGGCCATGGAAAATGTCTGAGTGTCTGCTCTTCTACCCAGAGGATGAGGCTGCCAAAAGG
 CTCTGAACCAAGTACCAAACCTCAGTTGGGAGAGCCAAGACCTGACCTGGGACCACGAGAGGACATCCAGCG
 GTTCATCCTTCGCTCCCTCGGAGAGAAGAGACAGTTATATTACGCCATGGAGCATCTGGGCACTAGCTTC
 AAGGACCCGGATTCTTGGACCCCGAGGCTCTCATCCCTAAGGCACTGAGAGAGAGGCTCAGAGAGGATC
 AAGAGAAGAAGCCCTGGGACCATCAGCCTCCACAGCAGAAGCCCTTGGCTCACTGGAAGGATGCCCTTCT
 GATGGAGGGTGTGACCCTCACGCAGGACGCCAGCAGCTGAATGGGTCCGAGCGAGCTGTCTTAGATGGG
 CTGCTAACTTCAGCCGAGTGTGGGGTCTGCTGCAGCTGGCCAAGGATGCAGCACAGGCTGGAGCCAGGT
 CAGGCTACCGTGGCCGCCGCTCTCCTCATAGTCTCATGAACGCTTTGAGGGGCTCACGGTGTCAAGGC
 TGCTCAGCTGGCCCGGACAGGACTGTGGGCAGGCCAGGCGCTAAGCTGCTTCTGGAGGTAAGTGAAGCGA
 GTGCGGACTTTGACCCAGGCCTACTTCTCCCGGAACGGCCACTGCATCTTTCCTTACCCACCTGGTGT
 GCCGAAGTGCCATAGAAGGTGAACAAGAGCAGCGTATGGACCTGAGTCACCCGGTTCATGCAGACAAGT
 TGTCTGGACCCCGACACTGGCGAATGCTGGCGGAGCCCCAGCCTACACCTATCGAGACTATAGTGGA
 CTCTCTACCTCAATGATGACTTCAAGGAGGCGACCTGTTCTTACGCAGCCCAACGCCCTCACTGTCA
 CGGCTCAGGTCCGTCCTCGGTGTGGGCGCCTTGTGGCCTTCACTCTGGTGGTGAAGAATCCCATGGTGT
 ATGGGCTGTGACTCGGGGACGGCCTGTGCCCTAGCACTGTGGCACACGTGGGCACCTGAGCACAGTGAA
 CAGGAGTGACAGAAGCCAAAGAGCTGCTGCAGGAGGAAGAGGAGGAAGAAGAGGAGGAAGACATTCTCA
 GCAGAGACCTTCCCCAGAACCCCAAGTACAAGCTTCAGCGAGTCCAGGAGAAAGCTGGGAAGCCCCG
 CCGGGTCCGGTCCGAGAGGAACTG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR208685 protein sequence
 Red=Cloning site Green=Tags(s)

MREDMAKYRRMSAIRPQSFRLVTPLYWAAAYDTGLELLEQREAAALPQLEEALQGLAHMESCRAACEG
 PEEHQGAEEEGEGSQGGLYEAIAGHWIRVLQCRQHCVADTATRPGRSFPVQDFLLSQLRRLHEAYAQVGN
 MSQAMENVLSVLLFYPEDEAAKKALNQYQTQLGEPRLDLPREDIQRFILRSLGEKRQLYYAMEHLGTSF
 KDPDSWTPREALIPKALRERLREDQEKKPDHQPQKPLAHWKDALLMEGVTLTQDAQQLNGSERAVLDG
 LLTSAECVLLQLAKDAAQAGARSGYRGRSPHSPHERFEGLTVLAAAQLARAGTVGRPGAKLLLEVSR
 VRTL TQAYFSRPLHL SFTHL VCRSAIEGEQEQRMDL SHPVHADNCLDPDTGECWREPPAYTYRDSG
 LLYLNDDFKGGDLFF TQPNAL TVTAQVRPRCGR L VAFSSGGENPHGVAVTRGRRCALALWHTWAPEHSE
 QEWTEAKELLQEEEEEEEEEDILSRDPSPEPPSHKLQRVQEKAGKPRRVRVREEL

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



ACCN: BC003726

ORF Size: 1635 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: [BC003726](#), [AAH03726](#)

RefSeq Size: 2289 bp

RefSeq ORF: 1637 bp

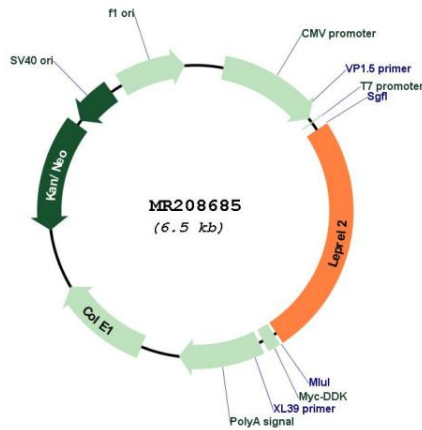
Locus ID: 14789

Cytogenetics: 6 59.17 cM

MW: 61.7 kDa

Gene Summary: Part of a complex composed of PLOD1, P3H3 and P3H4 that catalyzes hydroxylation of lysine residues in collagen alpha chains and is required for normal assembly and cross-linking of collagen fibrils (PubMed:27119146). Required for normal hydroxylation of lysine residues in type I collagen chains in skin, bone, tendon, aorta and cornea (PubMed:28115524). Required for normal skin stability via its role in hydroxylation of lysine residues in collagen alpha chains and in collagen fibril assembly (PubMed:27119146, PubMed:28115524). Apparently not required for normal prolyl 3-hydroxylation on collagen chains, possibly because it functions redundantly with other prolyl 3-hydroxylases (PubMed:28115524).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR208685