

## Product datasheet for **MG208685**

### Leprel2 (BC003726) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Leprel2 (BC003726) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Leprel2
Synonyms:	BC016431; Grcb; Leprel2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG208685 representing BC003726  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATCGGGGAAGACATGGCTAAGTACAGAAGGATGTCTGCAATCCGACCCAGAGCTCCGGGACCTGGTGA  
 CGCCCCTATACTGGGCAGCTTATGACACTGGCCTGGAGCTTCTGGAGCAACGGGAGGAGCAGCACTGGCTCT  
 ACCCCAAC TAGAGGAGGCCCTGCAGGGAGCCTGGCCACATGGAGAGCTGCCGTGCTGCCTGTGAGGGG  
 CCTGAGGAGCACCAAGGGGCTGAAGAAGAGGGAGAAGGGAGCCAGGGAGGCCTGTATGAAGCCATTGCAG  
 GACTGAGTACGGGTTCTGCAGTGCAGGCAGCACTGTGTGGCAGACACGGCCACCCGCTCCTGGTCGAG  
 CTTCCCTGTCCAGGACTTCTCCTCAGCCAGCTGAGACGGCTGCACGAGGCGTATGCTCAGTGGGGAAC  
 ATGTCTCAGGCCATGGAAATGTCTGAGTGTCTGCTCTTCTACCCAGAGGATGAGGCTGCCAAAAGG  
 CTCTGAACCACTACAACTCAGTTGGGAGAGCCAAGACCTGACCTGGGACCACGAGAGGACATCCAGCG  
 GTTCATCCTTCGCTCCCTCGGAGAGAAGAGACAGTTATATTACCCATGGAGCATCTGGGCACTAGCTTC  
 AAGGACCCGGATTCTTGGACCCCGAGGCTCTCATCCCTAAGGCACTGAGAGAGAGGCTCAGAGAGGATC  
 AAGAGAAGAAGCCCTGGGACCATCAGCCTCCACAGCAGAAGCCCTTGGCTCACTGGAAGGATGCCCTTCT  
 GATGGAGGGTGTGACCCTCACGCAGGACGCCAGCAGCTGAATGGGTGGAGCGAGCTGTCTTAGATGGG  
 CTGCTAACTTCAGCCGAGTGTGGGGTCTGCTGCAGCTGGCCAAGGATGCAGCACAGGCTGGAGCCAGGT  
 CAGGCTACCGTGGCCGCCGCTCTCCTCATAGTCTCATGAACGCTTTGAGGGGCTCACGGTGTCAAGGC  
 TGCTCAGCTGGCCGGCAGGACTGTGGGCAGGCCAGGCCTAAGCTGCTTCTGGAGGTAAGTGAAGCGA  
 GTCCGGACTTTGACCCAGGCCTACTTCTCCCGAAGCCAGCCATGCATCTTCTCACCCACCTGGTGT  
 GCCGAAGTGCCATAGAAGGTGAACAAGAGCAGCGTATGGACCTGAGTCACCCGGTTCATGCAGACAAGT  
 GTCTCTGGACCCCGACACTGGCGAATGCTGGCGGAGCCCGAGCCTACACCTATCGAGACTATAGTGGA  
 CTCTCTACCTCAATGATGACTTCAAGGGAGGCGACCTGTTCTTACGCAGCCCAACGCCCTCACTGTCA  
 CGGCTCAGGTCCTCGGTGTGGGCGCCTTGTGGCCTTCACTCTGGTGGTGAAGAATCCCATGGTGT  
 ATGGGCTGTGACTCGGGGACGGCCTGTGCCCTAGCACTGTGGCACACGTGGGCACCTGAGCACAGTGAA  
 CAGGAGTGGACAGAAGCCAAAGAGCTGCTGCAGGAGGAAGAGGAGGAAGAAGAGGAGGAAGACATTCTCA  
 GCAGAGACCTTCCCGAAGCCCAAGTACAAGCTTCAAGGAGTCCAGGAGAAAGCTGGGAAGCCCGC  
 CCGGGTCCGGTCCGAGAGGAACTG

**ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA**

**Protein Sequence:**

>MG208685 representing BC003726  
 Red=Cloning site Green=Tags(s)

MREDMAKYRRMSAIRPQSFRDLVTPLYWAAAYDTGLELLEQREAAALPQLEEALQGLAHMESCRAACEG  
 PEEHQGAEEEGEGSQGLYEAIAGHWIRVLQCRQHCVADTATRPGRSFPVQDFLLSQLRRLHEAYAQVGN  
 MSQAMENVLSVLLFYPEDEAAKKALNQYQTQLGEPDPDLGPREDIQRFILRSLGKQRQLYYAMEHLGTSF  
 KDPDSWTPALIPKALRERLREDQEKKPDHQPQKPLAHWKDALLMEGVTLTQDAQQLNGSERAVLDG  
 LLTSAECGVLLQLAKDAAQAGARSGYRGRSPHSPHERFEGLTVLKAQLARAGTVGRPGAKLLLEVSR  
 VRTLTAQYFSPERPLHLSFTHLVCRSAIEGEQEQRMDSLHPVHADNCVLDPDTGECWREPPAYTYRDYSG  
 LLYLNDFFKGGDLFFFTQPNALTVTAQVRPRCGRVAFSSGGENPHGVAVTRGRRCALALWHTWAPEHSE  
 QEWTEAKELLQEEEEEEEEIEDILSRDPSPEPPSHKLQRVQEKAGKPRRVREEL

**TRTRPLE - GFP Tag - V**

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** BC003726

**ORF Size:** 1637 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

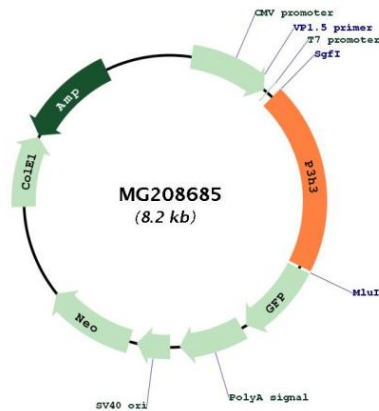
**Locus ID:** 14789

**Cytogenetics:** 6 59.17 cM

**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 MG208685