

Product datasheet for **MR224833**

P3h3 (NM_013534) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	P3h3 (NM_013534) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	P3h3
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:

>MR224833 representing NM_013534
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCTCCGGCTCCTCGGTTGTTGCTTTTCTGCTGCTGCCTCCCCGGGGTCCCCGAGCCTCCGAGC
 CCCCGGGCTGGCTCAGTTGTCACCGGGTTCGCTCCCCAGGCCCCGACTTGCTCTACGCGGACGGCT
 GCGAGCCTACTCGGCCGGGGCTTGGGCGCCCGCAGTGGCGCTGCTGCGAGAGGCGCTGCGGAGCCGGCG
 GCGCTGGGCCGCGCGCCAGGAGTGGGGGCGAGCTGCGCGCCGAGCCGGGGCGCCGCTCCCTCCC
 AGCTCCTCGGAGCCCACATCCTGTCTCCGGGCCGGGGTCTGGGAACCGCTGCTCTGCGGCCACGCT
 CCGCCGCGCCGAGTGCCTGACCCAGTGC GCGGTGCGGAGGCTGGGCCGGGGGCGCGCCGCGCTCCGC
 GTGGGAGCGCGTGGGATGCCTCCGCCGGCGGGAGCCTTAACTACCTGCAGAGGGCCTACTACC
 AGTTGAAGAAGCTGGACCTGGCAGCTTCTGAGCACACACCTTTTGTGGCAAACCAACACACCTGCA
 GATGCGGGAAGACATGGTAAGTACAGAAGGATGTCTGCAATCCGACCCAGAGCTTCCGGGACCTGGTG
 ACGCCCTATACTGGGCAGCTTATGACTGCGCTGGAGCTTCTGGAGCAACGGGAGGCAGCACTGGCTC
 TACCCCAACTAGAGGAGGCCCTGCAGGGGAGCCTGGCCACATGGAGAGCTGCCGTGCTGCTGTGAGGG
 GCCTGAGGAGACCAAGGGGCTGAAGAAGAGGGAGAAGGGAGCCAGGGAGGCCTGTATGAAGCCATTGCA
 GGACACTGGATACGGTTCTGCAGTGCAGGCAGCACTGTGTGGCAGACACGGCCACCCGCTCTGGTCGCA
 GCTTCCCTGTCCAGGACTTCTCCTCAGCCAGCTGAGACGGTGCACGAGGCGTATGCTCAGGTGGGAA
 CATGTCTCAGGCCATGAAAAATGCTGAGTGTCTGCTTTCTACCCAGAGGATGAGGCTGCCAAAAAG
 GCTCTGAACCAGTACAAACTCAGTTGGGAGAGCCAAGACCTGACCTGGGACCAGAGAGGACATCCAGC
 GGTTTCATCCTTCGCTCCCTCGGAGAGAAGAGACAGTTATATTACGCCATGGAGCATCTGGGCACTAGCT
 CAAGGACCCGGATTCTTGGACCCCGGAGGCTCTCATCCCTAAGGCACTGAGAGAGAGGCTCAGAGAGGAT
 CAAGAGAAGAAGCCCTGGGACCATCAGCCTCCACAGCAGAAGCCCTTGGCTCACTGGAAGGATGCCCTTC
 TGATGGAGGGTGTGACCCTCACGACAGGACGCCAGCAGCTGAATGGGTCGGAGCGAGCTGTCTTAGATGG
 GCTGCTAACTTACGCCGAGTGTGGGTTCTGCTGCAGCTGGCCAAGGATGCAGCACAGGCTGGAGCCAGG
 TCAGGCTACCGTGGCCGCGCTCCTCATAGTCTCATGAACGCTTTGAGGGGCTCACGGTGTCAAGG
 CTGCTCAGCTGGCCGGGACGGGACTGTGGCAGGCCAGGCGCTAAGCTGCTTCTGGAGGTAAGTGAGCG
 AGTGCGGACTTTGACCCAGGCCTACTTCTCCCGGAACGGCCACTGCATCTTTCCTTACCCACCTGGTG
 TGCCGAAGTGCCATAGAAGGTGAACAAGAGCAGCGTATGGACCTGAGTCACCCGTTTCATGCAGACAACT
 GTGCTCTGGACCCGACACTGGCGAATGCTGGCGGGAGCCCCAGCCTACACCTATCGAGACTATAGTGG
 ACTCCTTACCTCAATGATGACTTCAAGGGAGGCGACCTGTTCTTACGACAGCCCAACGCCCTCACTGTC
 ACGGCTCAGGTCCGCTCCTCGGTGTGGGCGCTTGTGGCCTTACGCTCTGGTGGTGAAGTCCCATGGTG
 TATGGGCTGTGACTCGGGGACGGCGCTGTGCCCTAGCACTGTGGCACACGTGGGCACCTGAGCACAGTGA
 ACAGGAGTGGACAGAAGCCAAAGAGCTGCTGCAGGAGGAAGAGGAGGAAGAAGAGGAGGAAGACATTCTC
 AGCAGAGACCTTCCCCAGAACCCCAAGTCACAAGCTTACGCGAGTCCAGGAGAAAGCTGGGAAGCCCC
 GCCGGTCCGGGTCGAGAGGAACTG

ACGCGTACGCGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR224833 representing NM_013534
 Red=Cloning site Green=Tags(s)

MLRLLRLLLLLLLLPPPGSPEPEPPGLAQLSPGSPPQAPDLLYADGLRAYSAGAWAPAVALLREALRSRA
 ALGRARQECGASCAAEPGAALPSQLLGAPHPVSGPGVWEPLLLRATLRRAECLTQCAVRRLLGPGGAARLR
 VGSALRDAFRRRREPYNLQRAYYQLKKLDAASAAHTFFVANPHTLQMREDMAKYRRMSAIRPQSFRDLV
 TPLYWAAAYDTGLELLEQREAAALPQLEALQGS LAHME SCRAACEGPEEHQGAEEEEEGESQGGLYEATIA
 GHWIRVLQCRQHCVADTATRPGRSFPVQDFLLSQLRRLHEAYAQVGNMSQAMENVLSVLLFYPEDEAAKK
 ALNQYQTQLGEPRLDGPREDIQRFILRSLGKQRLLYYAMEHLGTSFKDPDPSWTPEALIPKALRERLRED
 QEKKPWDHQPPQKPLAHWKDALLMEGVTLTQDAQQLNGSERAVLDGLLTS AECGVLLQLAKDAAQAGAR
 SGYRGRSPHSPHERFGLTVLKAAQLARAGTVGRPGAKLLLEVSERVRTLQAYFSPERPLHLSFTHLV
 CRSAIEGEQEQRMDLSHPVHADNCVLDPDTGECWREPPAYTYRDYSGLLYLNDDFKGGDLFFTPNALTV
 TAQVRPRCGRVAFSSGGENPHGVAVTRGRRCALALWHTWAPEHSEQEWEAKELLQEEEEEEEEEDIL
 SRDPSPEPPSHKLQRVQEKAGKPRRVRVREEL

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_013534

ORF Size: 2196 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: [NM_013534.5](#)

RefSeq Size: 2779 bp

RefSeq ORF: 2199 bp

Locus ID: 14789

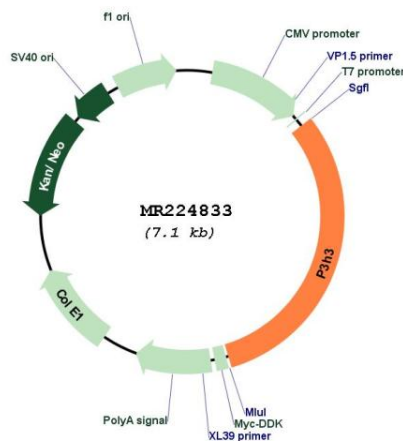
UniProt ID: [Q8CG70](#)

Cytogenetics: 6 59.17 cM

MW: 82.2 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 MR224833