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Product datasheet for RR214000

P3h2 (NM_001025627) Rat Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	P3h2 (NM_001025627) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	P3h2
Synonyms:	Leprel1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RR214000 representing NM_001025627
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCGGGAGAGCACGTGGGTGTCGCTGCTGTTGCTGCTGCTGCCCGCGCCACAGCGGGGCGGCCCCC
AGGACGGTCGCGGGTCGCCGGAGCCGGAGCCAGAGCGCGGCCCGCTGCAGCCCTTCGACCTGCTCTACGC
TAGCGGCGTGGCTGCCTACTACAGCGGCGACTACGAAGGTGCGGTGCGGGACCTAGAAGCCGCGCTGCGC
AGCCACCGGCGCCTGCGAGACATCCGCACGCGCTGCGCCCGCCACTGCGCCGCGCGCCGCCCGCTCGCGC
CCCCAGGCGCCGGCCCGGGAGCCGAGCTGCCCTTCTTCCGCGCGGTGCTCGAACGAGCGCGCTGCTCCCG
CAGCTGCCAGAGCCAGCGTCTGGGCGGCCCCGCGTCCCGCCACCGTGTCAGCGAAGACGTGCGCAGCGAC
TTCCAGCGCAGAGTGCCCTACAACTACCTGCAGAGGGCCTACATCAAGCTCAACCAGCTCGATAAAGCCA
TGGAAGCAGCTCACACATTCTTCATGGCCAACCCCGAGCACATGGAAATGCAGCAGAACATAGAAGACTA
TAAAGCCACAGCAAGAGTGGAAGCCCCGTTAGTAGACAGAGAAGCCAAGCCACACCTGGAAAGCTATAAT
GCTGGAGTTAAACATTATGAGGCGGATGACTTTGAAGCAGCCATCAAGTACTTTGAACAAGCTTTAAGAG
AATATTTCAATGAAGATATGGTGTGCCGCGCTCTGTGTGAGGGGCCTCAGAGATTTGAGGAATATGAGTA
TTTAGGATCTAAGGGCAGTCTTTATGAGGCAATCGCAGATCACTACATGCAGGTTCTGGTCTGTCAGCAT
GAGTGTGTGAGGGAACTTGCCACCCGCCCAGGCCGCCTCTCACCAATCGAGAACTTTCTTCCCTTGCATT
ATGACTACCTCCAGTTTGCCTACTACAGAGTTGGTGAGTATGTGAAAGCCTTGGAGTGTGCCAAAGCCTA
CCTGATGTTCCACCCAGACGACCAGGATGTCCTGGACAATGTAGACTTCTATGAGAGTCTGCTGGATGAC
AGCACTGACCCAGCATCCATTGAGGCCCGAGAGGATTTAACAGCATTTGTCAAACGTCATAAACTTGAAG
CTGAACTGATCAAGTCAGCTGCAGAGGGCCTGGGATTTTCATATTCTGAACCAAATTACTGGATCAGTTA
TGGAGGACGGCAGGATGAGAACCGAGTCCCTTCGGGAGTGAATATGGATGGGGCAGAAGTTCACGGATTG
TCCATGGGGAAGAAGTCACCACCCAAGATAGGTCGAGATCTTAGAGAAGGTGGCCCTCTGCTCTATGAGA
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GGAAGAACAGTGCCGGGAGCTGCACAGTGTGGCCAGTGGAATCATGCTGGTTGGTGATGGATACCGAGGG
AAAACGTCACCCCACACACCCAATGAGAAGTTTGAAGGAGCAACTGTTTTGAAAGCACTCAAATTTGGTT
ATGAAGGCCGGGTGCCACTGAAGAGTGCACGGCTGTTCTATGACATCAGCGAGAAGGCTCGGAAGATTGT
GGAGTCCTATTTCATGCTGAACTCAACCCTGTATTTTTCCTATACACACATGGTCTGCAGAACAGCCCTG
TCTGGGCAGCAGGATCGAAGAAATGACCTCAGTCACCCCATTCATGCGGACAACTGCTTGCTGGATCCAG
AAGCCAACGAATGCTGGAAGGAGCCTCCTGCTTACACCTTTCGGGACTATAGTGCTCTCCTGTATATGAA
TGACGACTTTGAAGGAGGAGAATTCATCTTCACGGAAATGGATGCTAAAACTGTGACTGCCTCTATAAAG
CCAAAATGTGGGCGAATGATCAGCTTCTCATCTGGTGGCGAGAACCCTCACGGGGTGAAGGCAGTCACCA
GAGGCCAGCGCTGTGCTGTGGCACTGTGGTTCACCCTAGACCCTCTCTACCGAGAATTGGAGCGGATACA
GGCTGATGAAGTGATTGCCATCTTGGATCAAGAACAACACGGGAAGCATGGACTGAATATTAACCCCAAA
GACGAGCTA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

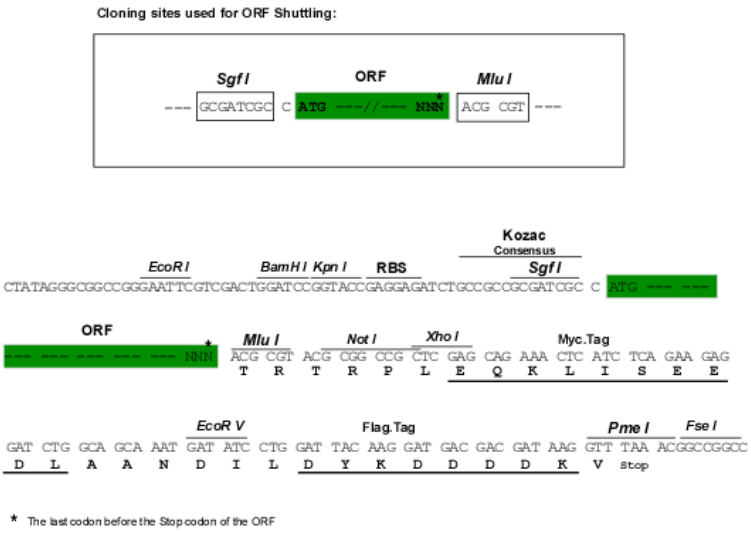
>RR214000 representing NM_001025627
Red=Cloning site Green=Tags(s)

MRESTWVSLLLLLLLPAPQRGGPQDGRGSPEPEPERGPLQPFDLLYASGVAAYYSGDYEGAVRDLEAALR
SHRRLRDIRTRCARHCAARRPLAPPGAGPGAELPFFRAVLERARCSRSCQSQRLGGPASRHRVSEDVRSD
FQRRVPYNYLQRAYIKLNQLDKAMEAAHTFFMANPEHMEMQQNIEDYKATARVEAPLVDREAKPHLESYN
AGVKHYEADDFEAAIKYFEQALREYFNEDMVCRALCEGPQRFEEYEYLGSKGSLYEAIADHYMQVLVCQH
ECVRELATRPGRLSPIENFLPLHYDYLQFAYYRVGEYVKALECAKAYLMFHPDDQDVLDNVDFYESLLDD
STDPASIEAREDLTAFVKRHKLEAELIKSAAEGLGFSYSEPNYWISYGGRQDENRVPSGVNMDGAEVHGL
SMGKKSPPKIGRDLREGGPLLYENITFVYNSEQLNGTQRVLLDNVLSEEQCRELHSVASGIMLVGDGYRG
KTSPHTPNEKFEGATVLKALKFGYEGRVPLKSARLFYDISEKARKIVESYFMLNSTLYFSYTHMVCRTAL
SGQQDRRNDLSHPIHADNCLLDPEANECWKEPPAYTFRDYSALLYMNDDFEGGEFIFTEMDAKTVTASIK
PKCGRMISFSSGGENPHGVKAVTRGQRCAVALWFTLDPLYRELERIQADEVIAILDQEQHGKHGLNINPK
DEL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001025627

ORF Size: 2109 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_001025627.1, NP_001020798.1

RefSeq Size: 2387 bp

RefSeq ORF: 2112 bp

Locus ID: 288016

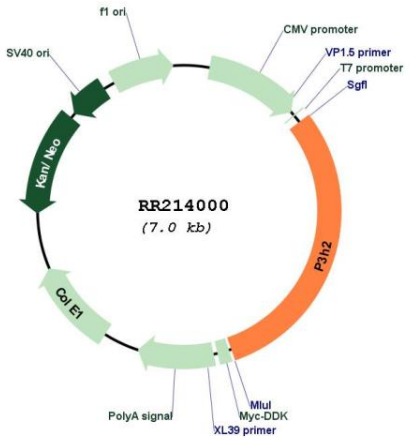
UniProt ID: Q4KLM6

Cytogenetics: 11q22

MW: 79.8 kDa

Gene Summary: Prolyl 3-hydroxylase that catalyzes the post-translational formation of 3-hydroxyproline on collagens (PubMed:21757687). Contributes to proline 3-hydroxylation of collagen COL4A1 and COL1A1 in tendons, the eye sclera and in the eye lens capsule (By similarity). Has high activity with the type IV collagen COL4A1, and lower activity with COL1A1. Catalyzes hydroxylation of the first Pro in Gly-Pro-Hyp sequences where Hyp is 4-hydroxyproline. Has no activity on substrates that lack 4-hydroxyproline in the third position (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RR214000