

Product datasheet for **MR221320**

P3h2 (NM_173379) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Tag:	Myc-DDK
Symbol:	P3h2
Synonyms:	4832416N06; AW553532; Leprell; Mlat4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



ORF Nucleotide Sequence: >MR221320 representing NM_173379
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTGCACTGGATCCGGTACCGAGGAGATCTGCC
 GCCGCGATCGCC

ATGCGGGAGAGCAGTGGGTGTCGCTGCTGTTGCTGCTACTGCTGCCCACACCGCAGCGGGCGGCCCC
 AGGACGGTCGCCGGTCCCCGGAGCCAGAGCCGAGCGCGGCCCGCTGCAGCCCTTCGACCTGCTCTACGC
 CAGCGCGTGGCTGCCTACTACAGCGGCGACTATGAGCGAGCGGTGCGGGACCTGGAAGCCGCCCTGAGC
 AGTCACCGGCGCCTACGGGACATCCGCACGCGCTGCGCCGCCACTGCGCGCGCGCCGTCCGCTCGCGC
 CCCCCGGCGCGGCCCGGAGCCGAGCTGCCCTTCTTCGCGCGGTGCTGGAGCGGGCGCGCTGCTCCCG
 CAGTGCAGAGCCAGCGCCTGGGCGGCCCGCGTCCCGCCACCGCGTCAGCGAGGACGTGCGCAGCGAC
 TTCCAACGCAGAGTTCCTACAACCTACCTGCAGAGGCGCTACATCAAGCTCAACCAGCTGAAAAAGGCCA
 TGGAAGCAGCTCACAGTTCCTCATGGCCAACCCGAGCACATGGAATGCAGCAGGACCTAGAGGACTA
 TAAAGCCACAGCAGAGTGGAAGCCCCCTGCTAGACCGCAAGCCAAGCCACACCTGGAAGCTATAAT
 GCTGGAGTCAAAACATTATGAAGCTGATGACTTTGAATCCGCAATCAAGTACTTTGAACAAGCTTTAAGAG
 AGTATTTCAATGAAGACATGGAGTGCCGTGCTCTATGTGAGGGGCTCAGAGATTTGAGGAATATGAGTA
 CTTAGGGTATAAAGGTGGTCTTTACGAGGCAATCGCAGATCACTATATGCAGGTTCTGGTCTGTCAGCAT
 GAATGTGTGAGGGAACCTGCCACCCGCCAGGCCGCTCTCACCACGAGAACTTTCTCCCTTGCAAT
 ACGACTACCTCCAGTTTGCCTACTACAGAGTTGGTGAATATGTGAAAGCCTTGAGTGCGCCAAAGCCTA
 CCTGATGTTCCATCCAGACAATGAGGATGTCCTGGACAATGTAGACTTCTATGAGAGTCTGCTGGATGAC
 AGCACTGATCCAGCATCCATTGAGGCCGGGAGGATTTAACAGCATTGTCAAACGTCATAAACTGAAG
 CTGAACTGATCAAGTTAGTGCAGAGGGCCTGGGATTTTCATATGCTGAACCGAATTACTGGATCAGCTA
 TGGAGGACGGCAGGATGAGAACCAGTCCCTTCAGGAGTGAATATGGATGGGGCAGAAGTTCATGGATTG
 TCAATGGGAAAGAAGTCAACGCCAAGATAGGTCGAGACCTAAGAGAAGGTGGCCCTCTGCTCTACGAGA
 ACATCACCTTCGTCTACAACCTGAGCAGCTGAACGGGACTCAACGGGTCTTCTCGATAATGTCCTGTC
 GCAAGAGCAGTGTGCGGAGCTGCACAGTGTGGCCAATGGAATCATGCTGGTTGGTGATGGATACCGAGGG
 AAAACGTCACCCACACACCCAATGAGAAGTTTGAAGGAGCAACTGTTTTAAAGCACTCAAATTTGGTT
 ATGAAGGCCGGTGCCACTGAAGAGTGCAAGACTGTTCTATGACATCAGCGAGAAGGCTCGGAAGATTGT
 GGAATCCTATTTTCATGCTGAACTCAACCCTGTATTTTCTATACACATGGTCTGCAGAACAGCCCTG
 TCTGGGCGAGGATCGAAGAAATGACCTCAGTACCCCATTCATGCAGACAACTGCCTGCTGGATCCAG
 AAGCCAATGAATGCTGGAAGGAGCCTCCCGCTTACACCTTTGCGGACTACAGTCTCTCCTGTATATGAA
 TGACGACTTTGACGGAGGGGAATTCATCTTACAGAAATGGATGCTAAAACCGTGACTGCCTCTATAAAA
 CCAAAGTGTGGCGAATGATCAGCTTCTCGTCTGGCGGCGAGAACCCTCATGGCGTGAAGGCGGTACCA
 GAGGCCAGCGCTGTGCTGTGGCACTATGGTTTACACTGGACCCTCTTACCGAGAACTGGAGCGGATACA
 GGCAGATGAAGTGATTGCCATCTTGATCAAGAACAGCGCGGAAGCATGGACTGAATATTAACCCAAA
 GATGAGCTA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR221320 representing NM_173379

Red=Cloning site Green=Tags(s)

MRESTWVSLLLLLLLPTPQRGGPQDGRSPPEPERGRLQPFDLLYASGVAAYYSGDYERAVRDLEAALS
SHRRRLDIRTRCARHCAARRPLAPPAGPGAELPFFRAVLERARCSRSCQSRLGGPASRHRVSEDVRS
FQRRVPYNYLQRAYIKLNQLEKAMEAAHTFFMANPEHMEMQQDLEDYKATARVEAPLLDREAPHLESYN
AGVKHYEADDFESAIFYEQALREYFNEDMECRALCEGPQRFEYEYLGKGGLYEAIADHYMQVLVCQH
ECVRELATRPGRLSPIENFLPLHYDYLQFAYYRVGEYVKALECAKAYLMFHPDNEDVLDNVDFYESLLDD
STDPASIEAREDLTAFVKRHKLEAELIKLAAEGLGFSYAEPNYWISYGRQDENRVPSGVNMDGAEVHGL
SMGKSPKIGRDLREGPLL YENITFVYNSEQLNGTQRVLLDNVLSQEQCRELHSVANGIMLVGDGYRG
KTSPTHPNEKFEGATVLKALKFGYEGRVPLKSARLFYDISEKARKIVESYFMLNSTLYFSYTHMVCRTAL
SQQQDRRNDLSHPITHADNCLLDPEANECWKEPPAYTFRDYSALLYMNDDFDGGEFIFTMDAKTVTASIK
PKCGRMISFSSGGENPHGVKAVTRGQRCALWFTLDPLYRELERIQADEVIAILDQEQRGKHGLNINPK
DEL

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

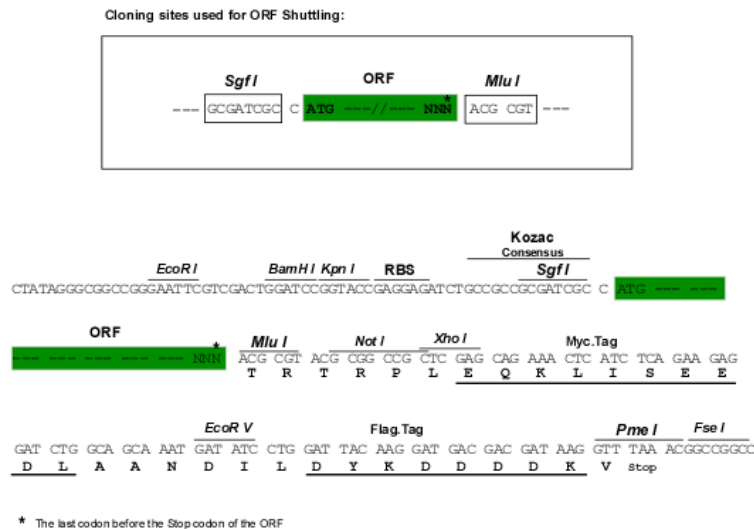
Chromatograms:

https://cdn.origene.com/chromatograms/mm9103_d07.zip

Restriction Sites:

SgfI-MluI

Cloning Scheme:



ACCN:

NM_173379

ORF Size:

2109 bp

OTI Disclaimer:

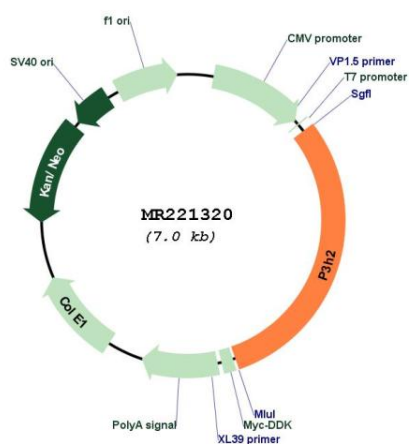
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in 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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_173379.3
RefSeq Size:	2248 bp
RefSeq ORF:	2112 bp
Locus ID:	210530
UniProt ID:	Q8CG71
Cytogenetics:	16 B1
MW:	80.2 kDa
Gene Summary:	Prolyl 3-hydroxylase that catalyzes the post-translational formation of 3-hydroxyproline on collagens (PubMed:24368846, PubMed:25645914). Contributes to proline 3-hydroxylation of collagen COL4A1 and COL1A1 in tendons, the eye sclera and in the eye lens capsule (PubMed:25645914). 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 have proline instead of 4-hydroxyproline in the third position (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR221320