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Product datasheet for RC224588

P4HA2 (NM_001017974) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	P4HA2 (NM_001017974) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	P4HA2
Synonyms:	MYP25
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC224588 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGAAACTCTGGGTGTCTGCATTGCTGATGGCCTGGTTTGGTGTCCTGAGCTGTGTGCAGGCCGAATTCT
TCACCTCTATTGGGCACATGACTGACCTGATTTATGCAGAGAAAGAGCTGGTGCAGTCTCTGAAAGAGTA
CATCCTTGTGGAGGAAGCCAAGCTTTCCAAGATTAAGAGCTGGGCCAACAAAATGGAAGCCTTGACTAGC
AAGTCAGCTGCTGATGCTGAGGGCTACCTGGCTCACCCTGTGAATGCCTACAAACTGGTGAAGCGGCTAA
ACACAGACTGGCCTGCGCTGGAGGACCTTGTCCTGCAGGACTCAGCTGCAGGTTTTATCGCCAACCTCTC
TGTGCAGCGGCAGTTCTTCCCCACTGATGAGGACGAGATAGGAGCTGCCAAAGCCCTGATGAGACTTCAG
GACACATACAGGCTGGACCCAGGCACAATTTCCAGAGGGGAACTTCCAGGAACCAAGTACCAGGCAATGC
TGAGTGTGGATGACTGCTTTGGGATGGGCCGCTCGGCCTACAATGAAGGGGACTATTATCATACGGTGTT
GTGGATGGAGCAGGTGCTAAAGCAGCTTGATGCCGGGGAGGAGGCCACCACAACCAAGTCACAGGTGCTG
GACTACCTCAGCTATGCTGTCTTCCAGTTGGGTGATCTGCACCGTGCCCTGGAGCTCACCCGCCGCCTGC
TCTCCCTTGACCCAAGCCACGAACGAGCTGGAGGGAATCTGCGGTACTTTGAGCAGTTATTGGAGGAAGA
GAGAGAAAAAACGTTAACAAATCAGACAGAAGCTGAGCTAGCAACCCCAGAAGGCATCTATGAGAGGCCT
GTGGACTACCTGCCTGAGAGGGATGTTTACGAGAGCCTCTGTCGTGGGGAGGGTGTCAAACTGACACCCC
GTAGACAGAAGAGGCTTTTCTGTAGGTACCACCATGGCAACAGGGCCCCACAGCTGCTCATTGCCCCCTT
CAAAGAGGAGGACGAGTGGGACAGCCCGCACATCGTCAGGTACTACGATGTCATGTCTGATGAGGAAATC
GAGAGGATCAAGGAGATCGCAAAACCTAAACTTGCACGAGCCACCGTTCGTGATCCCAAGACAGGAGTCC
TCACTGTCGCCAGCTACCGGGTTTCCAAAAGCTCCTGGCTAGAGGAAGATGATGACCCTGTTGTGGCCCG
AGTAAATCGTCGGATGCAGCATATCACAGGGTTAACAGTAAAGACTGCAGAATTGTTACAGGTTGCAAAT
TATGGAGTGGGAGGACAGTATGAACCGCACTTCGACTTCTCTAGGCGACCTTTTGACAGCGGCCTCAAAA
CAGAGGGGAATAGGTTAGCGACGTTTCTTAACTACATGAGTGATGTAGAAGCTGGTGGTGCCACCGTCTT
CCCTGATCTGGGGGCTGCAATTTGGCCTAAGAAGGGTACAGCTGTGTTCTGGTACAACCTCTTGCGGAGC
GGGGAAGGTGACTACCGAACAAGACATGCTGCCTGCCCTGTGCTTGTGGGCTGCAAGTGGGTCTCCAATA
AGTGGTTCCATGAACGAGGACAGGAGTTCTTGAGACCTTGTGGATCAACAGAAGTTGAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC224588 protein sequence
Red=Cloning site Green=Tags(s)

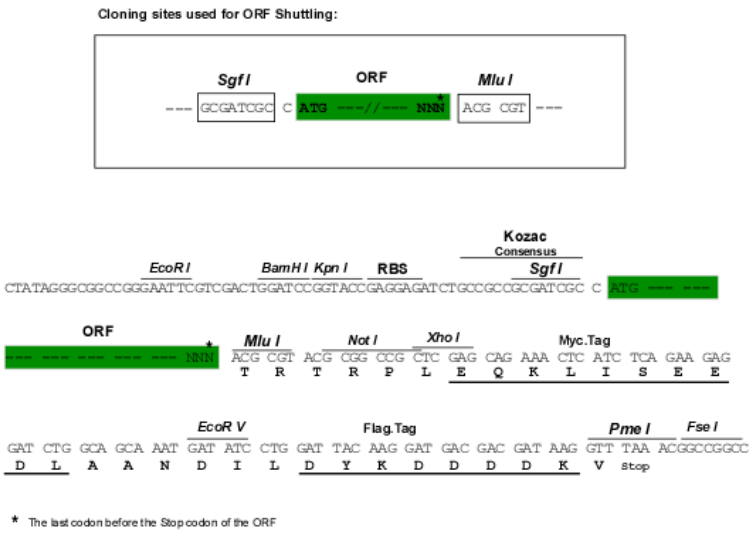
MKLWVSALLMAWFGVLSCVQAEFFTSIGHMTDLIYAEKELVQSLKEYILVEEAKLSKIKSWANKMEALTS
KSAADAEGYLAHPVNAYKLVKRLNTDWPALEDLVLQDSAAGFIANLSVQRQFFPTDEDEIGAAKALMRLQ
DTYRLDPGTISRGELPGTKYQAMLSVDDCFGMGRSAYNEGDYYHTVLWMEQVLKQLDAGEEATTTKSQVL
DYLSYAVFQLGDLHRALELTRRLLSLDPSHERAGGNLRYFEQLLEEEREKTLTNQTEAELATPEGIYERP
VDYLPERDVYESLCRGEGVKLTPRRQKRLFCRYHHGNRAPQLLIAPFKEEDEWDSPHIVRYYDVMSDEEI
ERIKEIAKPKLARATVRDPKTGVLTVASYRVSKSSWLEEDDDPVVARVNRRMQHITGLTVKTAELLQVAN
YGVGGQYEPHFDFSRRPFDSGLKTEGNRLATFLNYMSDVEAGGATVFPDLGAAIWPKKGTAVFWYNLLRS
GEGDYRTRHAACPVLVGCKWVSNKWFHERGQEFLRPCGSTEVD

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6338_e08.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001017974

ORF Size: 1599 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_001017974.2

RefSeq Size: 2110 bp

RefSeq ORF: 1602 bp

Locus ID: 8974

UniProt ID: O15460

Cytogenetics: 5q31.1

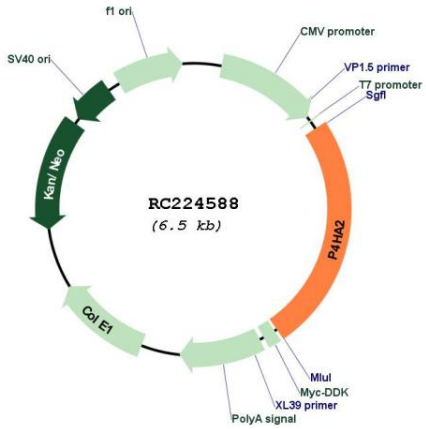
Protein Families: Druggable Genome

Protein Pathways: Arginine and proline metabolism, Metabolic pathways

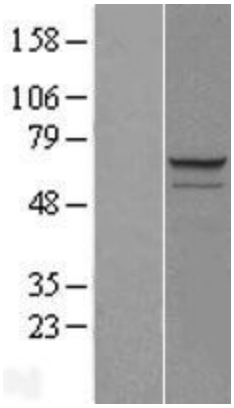
MW: 60.6 kDa

Gene Summary: This gene encodes a component of prolyl 4-hydroxylase, a key enzyme in collagen synthesis composed of two identical alpha subunits and two beta subunits. The encoded protein is one of several different types of alpha subunits and provides the major part of the catalytic site of the active enzyme. In collagen and related proteins, prolyl 4-hydroxylase catalyzes the formation of 4-hydroxyproline that is essential to the proper three-dimensional folding of newly synthesized procollagen chains. Alternatively spliced transcript variants encoding different isoforms have been described. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC224588



Western blot validation of overexpression lysate (Cat# [LY428199]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC227700] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).