

## Product datasheet for **RC227885**

### **P4HA1 (NM\_001142596) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	P4HA1 (NM_001142596) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	P4HA1
Synonyms:	P4HA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC227885 representing NM\_001142596  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGATCTGGTATATATTAATTATAGGAATCTGCTCCCACTCTTTGGCTCATCCAGGCTTTTTACTT  
 CAATTGGTCAGATGACTGATTTGATCCATACTGAGAAAGATCTGGTGACTTCTCTGAAAGATTATATTAA  
 GGCAGAAGAGGACAAGTTAGAACAATAAAAAATGGGCAGAGAAGTTAGATCGGCTAACTAGTACAGCG  
 ACAAAGATCCAGAAGGATTTGTTGGGCATCCAGTAAATGCATTCAAATTAATGAAACGCTGAATACTG  
 AGTGGAGTGAGTTGGAGAATCTGGTCCTTAAGGATATGTCAGATGGCTTTATCTCTAACCTAACCTTCA  
 GAGACGACTTTCTAATGATGAAGATCAGGTTGGGCAGCCAAAGCTCTGTTACGCTCCAGGATACC  
 TACAATTTGGATACAGATACCATCTCAAAGGTAATCTCCAGGAGTGAAACACAATCTTTTCTAACGG  
 CTGAGGACTGCTTTGAGTTGGGCAAAGTGGCCTATACAGAAGCAGATTATTACCATACGGAAGTGGAT  
 GGAACAAGCCCTAAGGCAACTGGATGAAGGCGAGATTTCTACCATAGATAAAGTCTCTGTTCTAGATTAT  
 TTGAGCTATGCGGTATATCAGCAGGGAGACCTGGATAAGGCACTTTTGCTCACAAGAAGCTTCTTGAAC  
 TAGATCTGAACATCAGAGAGCTAATGGTAACTTAAAAATTTTGTAGTATATAATGGCTAAAGAAAAAGA  
 TGTCAATAAGTCTGCTTCAGATGACCAATCTGATCAGAAAACACACAAAGAAAAAGGGGTTGCTGTG  
 GATTACCTGCCAGAGAGACAGAAGTACGAAATGCTGTGCCGTGGGGAGGGTATCAAAATGACCCCTCGGA  
 GACAGAAAAAATCTTTTGCCGCTACCATGATGGAACCGTAATCCTAAATTTATCTGGCTCCAGCTAA  
 ACAGGAGGATGAATGGGACAAGCCTCGTATTATTCGCTCCATGATATTATTTCTGATGCAGAAATTGAA  
 ATCGTCAAAGACCTAGCAAAACCAAGGCTGAGCCGAGCTACAGTACATGACCCTGAGACTGGAAAAATGA  
 CCACAGCACAGTACAGAGTATCTAAGAGTGCCTGGCTCTCTGGCTATGAAAATCCTGTGGTCTCGAAT  
 TAATATGAGAATACAAGATCTAACAGGACTAGATGTTTCCACAGCAGAGGAATTACAGAAAAGATGAGCCA  
 GATGCTTTCAAAGAGCTGGGACAGGAAATAGAATTGCTACATGGCTGTTTTATGAGTATGATGTCTG  
 CAGGAGGAGCCACTGTTTTCTGAAGTTGGAGCTAGTGTGGCCAAAAAGGAACTGCTGTTTTCTG  
 GTATAATCTGTTGCCAGTGGAGAAGGAGATTATAGTACAGGCATGCAGCCTGTCCAGTCTAGTTGGC  
 AACAAATGGGTATCCAATAAATGGCTCCATGACGTGGACAAGAATTTCAAGACCTGTACGTTGTCAG  
 AATTGGAA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC227885 representing NM\_001142596  
 Red=Cloning site Green=Tags(s)

MIWYILIIIGILLPQSLAHPGFFTSIQMTDLIHTEKDLVTSKDYIKAEEKLEQIKKWAELDRLTSTA  
 TKDPEGFVGHVPVNAFKLMKRLNTEWSELENLVLKDMSDGFISNLTIQRQYFPNDEDQVGAALKLLRLQDT  
 YNLDDTISKGNLPGVKHKSFLTAEDCFELGKVAYTEADYYHTELWMEQALRQLDEGEISTIDKVSVDY  
 LSYAVYQQGDLKALLLTKLLELDPEHQRANGNLKYFEYIMAKEKDVNKSASDDQSDQKTPKKKGAV  
 DYLPERQKYEMLCRGEIKMTPRRQKLCRYHDGNRNPKFILAPAKQEDEWDKPRIIRFHDIISDAEIE  
 IVKDLAKPRLSRATVHDPETGKLTAAQYRVKSASWLSGYENPVVSRINMRIQDLTGLDVSTAEELQKDEP  
 DAFKELGTGNRIATWLFYMSDVSAGGATVFPEVGASVWPCKGTAVFWYNLFASGEGDYSTRHAACPVLVG  
 NKWVSNKWLHERGQEFRRPCTLSELE

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk8064\\_f07.zip](https://cdn.origene.com/chromatograms/mk8064_f07.zip)

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**



**ACCN:** NM\_001142596

**ORF Size:** 1548 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\\_001142596.1](#), [NP\\_001136068.1](#)

**RefSeq ORF:** 1551 bp

**Locus ID:** 5033

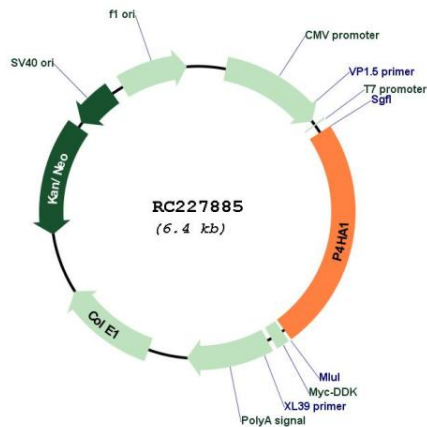
**UniProt ID:** [P13674](#)

**Cytogenetics:** 10q22.1

**Protein Families:** Druggable Genome, P450

<b>Protein Pathways:</b>	Arginine and proline metabolism, Metabolic pathways
<b>MW:</b>	58.96 kDa
<b>Gene Summary:</b>	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 RC227885