

## Product datasheet for **RC207779**

### **P4HA2 (NM\_001017973) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	P4HA2 (NM_001017973) 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)



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**ORF Nucleotide Sequence:**

>RC207779 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGAAACTCTGGGTGCTGCATTGCTGATGGCCTGGTTTGGTGTCTGAGCTGTGTGCAGGCCGAATTCT  
 TCACCTCTATTGGGCACATGACTGACCTGATTTATGCAGAGAAAGAGCTGGTGCAGTCTCTGAAAGAGTA  
 CATCCTTGTGGAGGAAGCCAAGCTTTCCAAGATTAAGAGCTGGGCCAACAAAATGGAAGCCTTGACTAGC  
 AAGTCAGCTGCTGATGCTGAGGGCTACCTGGCTCACCTGTGAATGCCTACAACTGGTGAAGCGCTAA  
 ACACAGACTGGCCTGCGCTGGAGACCTTGTCTGCAGGACTCAGCTGCAGGTTTTATCGCCAACCTCTC  
 TGTGCAGCGGCAGTTCTTCCCCTGATGAGGACGAGATAGGAGCTGCCAAAGCCCTGATGAGACTTCAG  
 GACACATACAGGCTGGACCCAGGCACAATTTCCAGAGGGAACTCCAGGAACCAAGTACCAGGCAATGC  
 TGAGTGTGGATGACTGCTTTGGGATGGGCCGCTCGGCCTACAATGAAGGGGACTATTATCATAACGGTGT  
 GTGGATGGAGCAGGTGCTAAAGCAGCTTGTGCGGGGAGGAGGCCACCACAACCAAGTACAGGTGCTG  
 GACTACCTCAGCTATGCTGTCTCCAGTTGGGTGATCTGCACCGTGCCCTGGAGCTACCCGCCGCTGC  
 TCTCCCTTGACCAAGCCACGAACGAGCTGGAGGGAATCTGCGGTAATTTGAGCAGTTATTGGAGGAAGA  
 GAGAGAAAAACGTTAACAAATCAGACAGAAGCTGAGCTAGCAACCCAGAAGGCATCTATGAGAGGCT  
 GTGGACTACCTGCCTGAGAGGGATGTTTACGAGAGCCTCTGTCGTGGGGAGGGTGTCAAACCTGACACCC  
 GTAGACAGAAGAGGCTTTTCTGTAGGTACCACCATGGCAACAGGGCCCCACAGCTGCTCATTGCCCTT  
 CAAAGAGGAGGACGAGTGGGACAGCCCGCACATCGTCAGTACTACGATGTCATGCTGATGAGGAAATC  
 GAGAGGATCAAGGAGATCGAAAACCTAACTTGCACGAGCCACCGTTCGTGATCCCAAGACAGGAGTCC  
 TCACTGTCGCGACTACCGGTTTCCAAAAGCTCCTGGCTAGAGGAAGATGATGACCTGTTGTGGCCCG  
 AGTAAATCGTCGGATGCAGCATATCACAGGGTTAACAGTAAAGACTGCAGAATTGTTACAGGTTGCAAA  
 TATGGAGTGGGAGGACAGTATGAACCGCACTTCGACTTCTTAGGCGACCTTTTACAGCGGCCTCAAAA  
 CAGAGGGGAATAGGTTAGCGACGTTTCTTAACTACATGAGTGTAGTAAGCTGGTGGTCCACCGTCTT  
 CCCTGATCTGGGGCTGCAATTTGGCCTAAGAAGGTACAGCTGTGTTCTGGTACAACCTCTTGGCGAGC  
 GGGGAAGTGACTACCGAACAAGACATGCTGCCTGCCCTGTGCTGTGGGCTGCAAGTGGGTCTCCAATA  
 AGTGGTCCATGAACGAGGACAGGAGTTCTTGAGACCTTGTGGATCAACAGAAGTTGAC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC207779 protein sequence  
 Red=Cloning site Green=Tags(s)

MKLWVSALLMAWFGVLSVQAEFFTSIGHMTDLIYAEKELVQSLKEYILVEEAKLSKIKSWANKMEALTS  
 KSAADAEGYLAHPVNAYKLVKRLNTDWPALDVLQDSAAGFIANLSVQRQFPPTDEDEIGAALKMRLQ  
 DTYRLDPGTISRDELPGTKYQAMLVSDDCFGMGRSAYNEGDIYHTVLWMEQVLKQLDAGEEATTTKSQVL  
 DYLSYAVFQLGDLHRALELTRRLLSLDPSHERAGNLRYPQLLEEREKTLTNQTEAELATPEGIYERP  
 VDYLPERDVYESLCRGEVGLTPRRQKRLFCRYHHGNRAPQLLIAPFKEEDEWDSPIVRYDDVMSDEEI  
 ERIKEIAKPKLARATVRDPKTVLTVASYRVSKSSWLEEDDPVVARVNRMQHITGLTVKTAELLQVAN  
 YGVGGQYEPHDFSRPFDGLKTEGNRLATFLNYMSDVEAGGATVFPDLGAAIWPCKGTAVFWYNLLRS  
 GEGDYRTRHAACPVLVGCKWVSNKWFHERGQEFLRPCGSTEVD

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6338\\_e08.zip](https://cdn.origene.com/chromatograms/mk6338_e08.zip)

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001017973

**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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

**RefSeq:** [NM\\_001017973.1](#), [NP\\_001017973.1](#)

**RefSeq Size:** 2582 bp

**RefSeq ORF:** 1602 bp

**Locus ID:** 8974

UniProt ID: [O15460](#)

Cytogenetics: 5q31.1

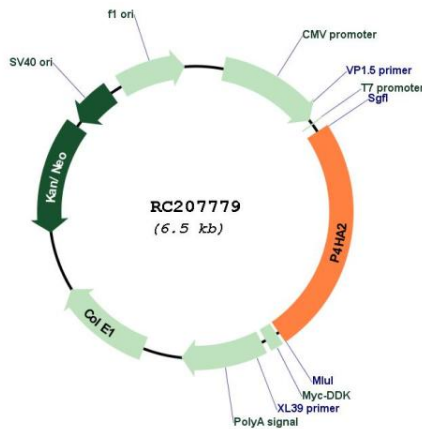
Protein Families: Druggable Genome

Protein Pathways: Arginine and proline metabolism, Metabolic pathways

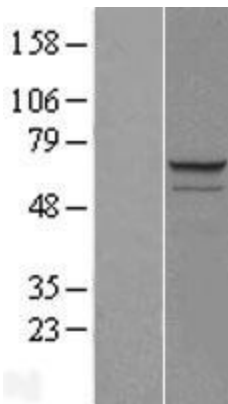
MW: 60.6 kDa

**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]

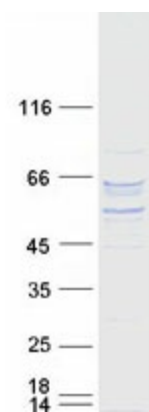
**Product images:**



Circular map for RC207779



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



Coomassie blue staining of purified P4HA2 protein (Cat# [TP307779]). The protein was produced from HEK293T cells transfected with P4HA2 cDNA clone (Cat# RC207779) using MegaTran 2.0 (Cat# [TT210002]).