

Product datasheet for **RG223831**

P4HA1 (NM_000917) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	P4HA1 (NM_000917) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	P4HA1
Synonyms:	P4HA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG223831 representing NM_000917
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGATCTGGTATATATTAATTATAGGAATCTGCTTCCCAGTCTTTGGCTCATCCAGGCTTTTTACTT
 CAATTGGTCAGATGACTGATTTGATCCACTGAGAAAGATCTGGTGACTTCTCTGAAAGATTATATTAA
 GGCAGAAGAGGACAAGTTAGAACAATAAAAAATGGGCAGAGAAGTTAGATCGGCTAACTAGTACAGCG
 ACAAAGATCCAGAAGGATTTGTTGGGCATCCAGTAAATGCATTCAAATTAATGAAACGTCTGAATACTG
 AGTGGAGTGAGTTGGAGAATCTGGTCCTTAAGGATATGTCAGATGGCTTTATCTCTAACCTAACCTTCA
 GAGACAGTACTTTCTAATGATGAAGATCAGGTTGGGCGAGCCAAAGCTCTGTTACGCTCCAGGATACC
 TACAATTTGGATACAGATACCATCTCAAAGGTAATCTCCAGGAGTGAAACACAATCTTTTCTAACGG
 CTGAGGACTGCTTTGAGTTGGGCAAAGTGGCCTATACAGAAGCAGATTATTACCATACGGAAGTGGAT
 GGAACAAGCCCTAAGGCAACTGGATGAAGGCGAGATTTCTACCATAGATAAAGTCTCTGTTCTAGATTAT
 TTGAGCTATGCGGTATATCAGCAGGGAGACCTGGATAAGGCACTTTTGCTCACAAGAAGCTTCTTGAAC
 TAGATCTGAACATCAGAGAGCTAATGGTAACTTAAAAATTTTGTAGTATATAATGGCTAAAGAAAAAGA
 TGTCAATAAGTCTGCTTCAGATGACCAATCTGATCAGAAAACCTACACCAAGAAAAAGGGGTTGCTGTG
 GATTACCTGCCAGAGAGACAGAAGTACGAAATGCTGTGCCGTGGGGAGGGTATCAAAATGACCCCTCGGA
 GACAGAAAAAATCTTTTGCCGCTACCATGATGAAAACCGTAATCCTAAATTTATCTGGCTCCAGCTAA
 ACAGGAGGATGAATGGGACAAGCCTCGTATTATTCGCTTCCATGATATTATTTCTGATGCAGAAATTGAA
 ATCGTCAAAGACCTAGCAAAACCAAGGCTGAGCCGAGCTACAGTACATGACCCTGAGACTGGAAAAATGA
 CCACAGCACAGTACAGAGTATCTAAGAGTGCCTGGCTCTCTGGCTATGAAAATCCTGTGGTCTCGAAT
 TAATATGAGAATAACAAGATCTAACAGGACTAGATGTTTCCACAGCAGAGGAATTACAGGTAGCAAATTA
 GGAGTTGGAGGACAGTATGAACCCATTTTGACTTTGCACGAAAAGATGAGCCAGATGCTTTCAAAGAGC
 TGGGGACAGGAAATAGAATTGCTACATGGCTGTTTATATGAGTGATGTGTCTGCAGGAGGAGCCACTGT
 TTTTCTGAAGTTGGAGCTAGTGTGTTGGCCAAAAAGGAACTGCTGTTTCTGGTATAATCTGTTTGCC
 AGTGGAGAAGGAGATTATAGTACACGGCATGCAGCCTGTCCAGTGTAGTTGGCAACAAATGGGTATCCA
 AATAATGGCTCCATGAACGTGGACAAGAATTTCAAGACCTTGTACGTTGTCAGAATTGGAA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG223831 representing NM_000917
 Red=Cloning site Green=Tags(s)

MIWYILIIIGILLPQSLAHPGFFTSIGQMTDLIHTEKDLVTSKDYIKAEEKLEQIKKWAEKLDRLTSTA
 TKDPEGFVGHVNAFKLMKRLNTEWSELENLVLKDMSDGFISNLTIQRYFPNDEDQVGAALKLRQDT
 YNLDTDTISKGNLPGVKHKSFLTAEDCFELGKVAYTEADYYHTELWMEQALRQLDEGEISTIDKVSVDY
 LSYAVYQQGDLKALLLTKLLELDPEHQRANGNLKYFEYIMAKEKDVNKSASDDQSDQKTPKKGAV
 DYLPERQKYEMLCRGEIKMTPRRQKFLCRYHDGMRNPKFILAPAKQEDEWDKPRIIRFHDIISDAEIE
 IVKDLAKPRLSRATVHDPETGKLTTAQYRVSKSAWLSGYENPVVSRINMRIQDLTGLDVSTAEELQVANY
 GVGQYEPHFDFARKDEPDAFKELGTGNRIATWLFYMSDVSAGGATVFPVEVGASVWPKKGTAVFWYNLFA
 SGEGDYSTRHAACPVLVGNKWSNKWLHERGQEFRRPCTLSELE

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



ACCN: NM_000917

ORF Size: 1602 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_000917.3](#)

RefSeq Size: 2752 bp

RefSeq ORF: 1605 bp

Locus ID: 5033

UniProt ID: [P13674](#)

Cytogenetics: 10q22.1

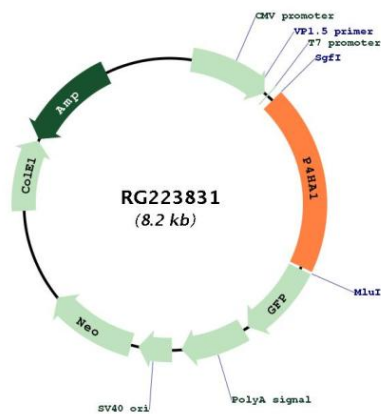
Domains: 2OG-Fell_Oxy, P4Hc

Protein Families: Druggable Genome, P450

Protein Pathways: Arginine and proline metabolism, Metabolic pathways

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 RG223831