

Product datasheet for **SC322507**

P4HB (NM_000918) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	P4HB (NM_000918) Human Untagged Clone
Tag:	Tag Free
Symbol:	P4HB
Synonyms:	CLCRP1; DSI; ERBA2L; GIT; P4Hbeta; PDI; PDIA1; PHDB; PO4DB; PO4HB; PROHB
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

Fully Sequenced ORF:

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>OriGene sequence for SC322507
CCCGGCGGCGCCAACCGAAGCGCCCCGCTGATCCGTGTCCGACATGCTGCGCCGCGCTC
TGCTGTGCCTGGCCGTGGCCGCCCTGGTGCGCGCCGACGCCCCGAGGAGGAGACCACG
TCCTGGTGTGCGGAAAAGCAACTTCGCGGAGGCGCTGGCGGCCCAAGTACCTGCTGG
TGGAGTTCTATGCCCTTGGTGTGGCCACTGCAAGGCTCTGGCCCTGAGTATGCCAAAG
CCGCTGGGAAGCTGAAGGCAGAAGGTTCCGAGATCAGGTTGGCCAAGGTGACGCCACGG
AGGAGCTGACCTGGCCACGAGTACGGCGTGCAGGCTATCCACCATCAAGTTCTTCA
GGAATGGAGACACGGCTTCCCCAAGGAATATACAGCTGGCAGAGAGGCTGATGACATCG
TGAAGTGGCTGAAGAAGCGCACGGGCCCGCTGCCACCACCTGCCTGACGGCGCAGCTG
CAGAGTCTTGGTGGAGTCCAGCGAGGTGGCTGTATCGGCTTCTTCAAGGACGTGGAGT
CGGACTCTGCCAAGCAGTTTTTGCAGGCAGCAGAGGCCATCGATGACATAACCATTTGGGA
TCACTTCCAACAGTGACGTGTTCTCCAAATACCAGCTCGACAAAGATGGGGTTGCTCTCT
TTAAGAAGTTTGATGAAGGCCGGAACAACCTTTGAAGGGGAGGTCACCAAGGAGAACCTGC
TGGACTTTATCAAACACAACCAGCTGCCCTTGTATCGAGTTCACCGAGCAGACAGCCC
CGAAGATTTTTGGAGGTGAAATCAAGACTCACATCCTGCTGTTCTTGCCCAAGAGTGTGT
CTGACTATGACGGCAAACTGAGCAACTTAAAACAGCAGCCGAGAGCTTCAAGGGCAAGA
TCCTGTTTCATCTTCATCGACAGCGACCACCCGACAACCAGCGCATCCTCGAGTTCTTTG
GCCTGAAGAAGGAAGAGTGCCCGGCCGTGCGCCTCATCACCTGGAGGAGGAGATGACCA
AGTACAAGCCCGAATCGGAGGAGCTGACGGCAGAGAGGATCACAGAGTTCTGCCACCGCT
TCCTGGAGGGCAAAATCAAGCCCCACCTGATGAGCCAGGAGCTGCCGGAGGACTGGGACA
AGCAGCCTGTCAAGGTGCTTGTGGGAAGAACTTTGAAGACGTGGCTTTTGTGAGAAAA
AAAACGCTTTTGTGGAGTTCTATGCCCATGGTGTGGTCACTGCAAAACAGTTGGCTCCCA
TTTGGGATAAACTGGGAGAGAGCTACAAGGACCATGAGAACATCGTCATCGCCAAGATGG
ACTCGACTGCCAACGAGGTGGAGGCCGTCAAAGTGCACAGCTTCCCCACACTCAAGTTCT
TTCTGCCAGTGCCGACAGGACGGTCAATTGATTACAACGGGGAACGCACGCTGGATGGTT
TTAAGAAATTCCTGGAGAGCGGTGGCCAGGATGGGGCAGGGGATGATGACGATCTCGAGG
ACCTGGAAGAAGCAGAGGAGCCAGACATGGAGGAAGACGATGATCAGAAAGCTGTGAAAG
ATGAAGTGAATACGCAAAGCCAGACCCGGGCGCTGCCGAGACCCTCGGGGGCTGCACA
CCCAGCAGCAGCGCACGCCTCCGAAGCCTGCGGCCTCGCTTGAAGGAGGGCGTCGCCGGA
AACCCAGGGAACCTCTCTGAAGTGACACCTCACCCCTACACACCGTCCGTTACCCCCGT
CTCTTCCTTCTGCTTTTCGGTTTTTGGAAAGGGATCCATCTCCAGGCAGCCACCCTGGT
GGGGCTTGTTCCTGAAACCATGATGTAATTTTTCATACATGAGTCTGTCCAGAGTGCTT
GCTACCGTGTTCCGAGTCTCGCTGCCTCCCTCCCGGGGAGGTTTCTCCTTTTTTGAAA
ATTCCGCTGTGGGATTTTTAGACATTTTTCGACATCAGGGTATTTGTTCCACCTTGCC
AGGCCTCCTCGGAGAAGCTTGTCCCCGTGTGGGAGGGACGGAGCCGGACTGGACATGGT
CACTCAGTACCGCCTGCAGTGTCCCATGACTGATCATGGCTCTTGCATTTTTGGGTAA
TGGAGACTTCCGGATCCTGTGAGGTGTCCCCATGCCTGGAAGAGGAGCTGGTGGCTGC
CAGCCCTGGGGCCCGGCACAGGCCTGGGCCTTCCCCTTCCCTCAAGCCAGGGCTCCTCCT
CCTGTGCGTGGGCTCATTGTGACCACTGGCCTCTCTACAGCACGGCCTGTGGCCTGTTCAA
GGCAGAACCACGACCCTTGACTCCCGGGTGGGGAGGTGGCCAAGGATGCTGGAGCTGAAT
CAGACGCTGACAGTTCTTCAGGCATTTCTATTTACAATCGAATTGAACACATTGGCCAA
ATAAAGTTGAAATTTTACCACCAAAAAAAAAAAAAAAAAAAAAAAAAA
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Restriction Sites:

Please inquire

ACCN:

NM_000918

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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 TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

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_000918.3](#), [NP_000909.2](#)

RefSeq Size: 2596 bp

RefSeq ORF: 1527 bp

Locus ID: 5034

UniProt ID: [P07237](#)

Cytogenetics: 17q25.3

Domains: thiored

Protein Families: Druggable Genome

Gene Summary:

This gene encodes the beta subunit of prolyl 4-hydroxylase, a highly abundant multifunctional enzyme that belongs to the protein disulfide isomerase family. When present as a tetramer consisting of two alpha and two beta subunits, this enzyme is involved in hydroxylation of prolyl residues in procollagen. This enzyme is also a disulfide isomerase containing two thioredoxin domains that catalyze the formation, breakage and rearrangement of disulfide bonds. Other known functions include its ability to act as a chaperone that inhibits aggregation of misfolded proteins in a concentration-dependent manner, its ability to bind thyroid hormone, its role in both the influx and efflux of S-nitrosothiol-bound nitric oxide, and its function as a subunit of the microsomal triglyceride transfer protein complex. [provided by RefSeq, Jul 2008]