

## Active Recombinant Human P4HB protein, His-tagged

Cat. No. P4HB-19H Lot. No. (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Recombinant human P4HB protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography.                                                                                                                                                                                                                                                                                                                       |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Description</b>      | P4HB, prolyl 4 hydroxylase subunit beta, is a multifunctional and highly abundant 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 protein is also a disulfide isomerase containing two thioredoxin domains that catalyze the formation, breakage and rearrangement of disulfide bonds. |
| <b>Form</b>             | Liquid. In 20mM Tris-HCl buffer (pH8.0) containing 10% glycerol                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Bio-activity</b>     | Specific activity >100 A650/cm/min/mg. Enzymatic activity was confirmed by measuring the aggregation of insulin in the presence of DTT.                                                                                                                                                                                                                                                                                                                          |
| <b>Molecular Mass</b>   | 57.5 kDa (521aa), confirmed by MALDI-TOF                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>AA Sequence</b>      | MGSSHHHHHH SGLVPRGSH MDAPEEEDHV LVLKSNFAE ALAAHKYLLV<br>EFYAPWCGHC KALAPEYAKA AGKLKAESE IRLAKVDATEESDLAQQYGV<br>RGYPTIKFFR NGDTASPKEY TAGREADDIV NWLKKRTGPA ATTLPDGAAA<br>ESLVESSEVA VIGFFKDVES DSAKQFLQAA EAIDDIPFGI TSNSDVFSKY                                                                                                                                                                                                                                 |

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QLDKDGVVLF KKFDEGRNNF EGEVTKENLL DFIKHNQLPL VIEFTEQTAP  
 KIFGGEIKTH ILLFLPKSVSDYDGKLSNFK TAAESFKGKI LFIFIDSDHT  
 DNQRILEFFG LKKEECPAVR LITLEEEMTK YKPESEELTA ERITEFCHRF  
 LEGKIKPHLM SQELPEDWDK QPVKVLVGKN FEDVAFDEKK NVFVEFYAPW  
 CGHCKQLAPI WDKLGETYKD HENIVIAKMD STANEVEAVK  
 VHSFPTLKFFPASADRTVID YNGERTLDGF KKFLES GGQD GAGDDDDLED  
 LEEAEEPME EDDDQKAVKD EL

**Purity** >90% by SDS - PAGE

**Storage** Can be stored at +4 centigrade short term (1-2 weeks). For long term storage, aliquot and store at -20 centigrade or -70 centigrade. Avoid repeated freezing and thawing cycles.

**Concentration** 1 mg/ml (determined by Bradford assay)

## GENE INFORMATION

**Gene Name** P4HB prolyl 4-hydroxylase, beta polypeptide [ Homo sapiens ]

**Official Symbol** P4HB

**Synonyms** P4HB; prolyl 4-hydroxylase, beta polypeptide; ERBA2L, PO4DB, procollagen proline, 2 oxoglutarate 4 dioxygenase (proline 4 hydroxylase), beta polypeptide , procollagen proline, 2 oxoglutarate 4 dioxygenase (proline 4 hydroxylase), beta polypeptide (protein disulfide isomerase associated 1) , procollagen proline, 2 oxoglutarate 4 dioxygenase (proline 4 hydroxylase), beta polypeptide (protein disulfide isomerase; thyroid hormone binding protein p55); protein disulfide-isomerase; collagen prolyl 4 hydroxylase beta; DSI; GIT; P4Hbeta; PDI; PDIA1; PO4HB; PROHB; protein disulfide isomerase family A; member 1; protein disulfide isomerase associated 1; p55;

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procollagen hydroxylase; prolyl 4-hydroxylase subunit beta; collagen prolyl 4-hydroxylase beta; thyroid hormone-binding protein p55; glutathione-insulin transhydrogenase; cellular thyroid hormone-binding protein; protein disulfide isomerase-associated 1; protein disulfide isomerase/oxidoreductase; protein disulfide isomerase family A, member 1; procollagen-proline, 2-oxoglutarate 4-dioxygenase (proline 4-hydroxylase), beta polypeptide; PHDB; PO4DB; ERBA2L;

**Gene ID** [5034](#)

**mRNA Refseq** [NM\\_000918](#)

**Protein Refseq** [NP\\_000909](#)

**MIM** [176790](#)

**UniProt ID** [P07237](#)


**Chromosome Location** 17q25

**Pathway** Chylomicron-mediated lipid transport, organism-specific biosystem; Lipid digestion, mobilization, and transport, organism-specific biosystem; Lipoprotein metabolism, organism-specific biosystem; Metabolism, organism-specific biosystem; Metabolism of lipids and lipoproteins, organism-specific biosystem; Protein processing in endoplasmic reticulum, organism-specific biosystem; Protein processing in endoplasmic reticulum, conserved biosystem;

**Function** electron carrier activity; isomerase activity; procollagen-proline 4-dioxygenase activity; protein binding; protein disulfide isomerase activity; protein disulfide oxidoreductase activity; protein heterodimerization activity;

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