

Recombinant Human P4HB, His-tagged

Cat. No. P4HB-27008TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Full-length Human P4HB with an N-terminal 6xHis-tag is a single, non-glycosylated, polypeptide chain containing 508 amino acids and having a molecular mass of 57 kDa.
Species	Human
Source	E.coli
Description	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.
Conjugation	HIS
Biological activity	Reductase Activity: 1.0×10^{-3} OD _{650nm} / min-2. By measuring the turbidity increase at 650 nm due to insulin reduction (Holmgren, A. (1979) J. Biol. Chem. 254, 9627–9632). The activity is expressed as the ratio of the slope of a linear part of the

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	turbidity
Form	Lyophilised:Reconstitute in sterile 18Mohm/cm water at not less than 100µg/ml, which can then be further diluted to other aqueous solutions.
Purity	>95% by SDS-PAGE
Storage buffer	Preservative: None Constituents: 50mM Potassium phosphate, pH 7.5
Storage	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
Sequences of amino acids	The sequence of the first five N-terminal amino acids was determined and was found to be Met-Leu-Arg-Arg-Ala.
Sequence Similarities	Belongs to the protein disulfide isomerase family. Contains 2 thioredoxin domains.

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 (prote
Gene ID	5034
mRNA Refseq	NM_000918

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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 of lipids and lipoproteins, organism-specific biosystem; Protein processing in endoplasmic reticulum, organism-specific biosystem;
Function	electron carrier activity; isomerase activity; procollagen-proline 4-dioxygenase activity; protein binding; protein disulfide isomerase activity;

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