Active Recombinant Human P4HB protein, His-tagged

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

SPECIFICATION

Product Overview	Recombinant human P4HB protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography.
Species	Human
Source	E.coli
Description	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 preprocollagen. This protein is also a disulfide isomerase containing two thioredoxin domains that catalyze the formation, breakage and rearrangement of disulfide bonds.
Form	Liquid. In 20mM Tris-HCl buffer (pH8.0) containing 10% glycerol
Bio-activity	Specific activity >100 A650/cm/min/mg. Enzymatic activitywas confirmed by measuring the aggregation of insulin in the presence of DTT.
Molecular Mass	57.5 kDa (521aa), confirmed by MALDI-TOF
AA Sequence	MGSSHHHHHH SSGLVPRGSH MDAPEEEDHV LVLRKSNFAE ALAAHKYLLV EFYAPWCGHC KALAPEYAKA AGKLKAEGSE IRLAKVDATEESDLAQQYGV RGYPTIKFFR NGDTASPKEY TAGREADDIV NWLKKRTGPA ATTLPDGAAA 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 KKFLESGGQD GAGDDDDLED LEEAEEPDME 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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	protocollagen 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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