

Recombinant Human PCBD1, His-tagged

Cat. No. PCBD1-2809H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant human PCBD1 protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques. MW = 14.1 kDa (124aa), confirmed by MALDI-TOF.
Species	Human
Source	E.coli
Description	Pterin-4-alpha-carbinolamine dehydratase precursor, also known as PCBD1, is a component of the phenylalanine hydroxylase (PAH) system and participates in tetrahydrobiopterin biosynthesis. A deficiency of this enzyme leads to hyperphenylalaninemia. The enzyme regulates the homodimerization of the transcription factor hepatocyte nuclear factor 1 (HNF1).
Sequences Of Amino Acids	MGSSHHHHHH SSGLVPRGSH MAGKAHRLSA EERDQLLPNL RAVGWNELEG RDAIFKQFHF KDFNRAFGFM TRVALQAEKL DHHPEWFNVY NKVHITLSTH ECAGLSERDI NLASFIEQVA VSMT
Purity	> 95% by SDS – PAGE.
Form	Liquid. In 20mM Tris-HCl buffer (pH 8.0) containing 1mM DTT, 10% glycerol.
Concentration	1 mg/ml (determined by Bradford assay).
Storage	Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and

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store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

GENE INFORMATION

Gene Name [PCBD1 pterin-4 alpha-carbinolamine dehydratase/dimerization cofactor of hepatocyte nuclear factor 1 alpha \[Homo sapiens \]](#)

Synonyms PCBD1; pterin-4 alpha-carbinolamine dehydratase/dimerization cofactor of hepatocyte nuclear factor 1 alpha; PCD; PHS; DCOH; PCBD; pterin-4-alpha-carbinolamine dehydratase; dimerizing cofactor for HNF1; dimerization cofactor of HNF1; 4-alpha-hydroxy-tetrahydropterin dehydratase; phenylalanine hydroxylase-stimulating protein; 6-pyruvoyl-tetrahydropterin synthase/dimerization cofactor of hepatocyte nuclear factor 1 alpha (TCF1); EC 4.2.1.96; pterin-4 alpha-carbinolamine dehydratase/dimerization cofactor of hepatocyte nuclear factor 1 alpha (TCF1); Pterin-4a-carbinolamine dehydratase (dimerization cofactor of hepatic nuclear factor 1-alpha); Pterin carbinolamine dehydratase; Dimerization cofactor of hepatocyte nuclear factor 1-alpha

Gene ID [5092](#)

mRNA Refseq [NM_000281](#)

Protein Refseq [NP_000272](#)

MIM [126090](#)

UniProt ID [P61457](#)

Chromosome Location 10q22

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Pathway

Metabolism of amino acids and derivatives

Function

4-alpha-hydroxytetrahydrobiopterin dehydratase activity; identical protein binding; lyase activity; phenylalanine 4-monooxygenase activity; protein binding; transcription coactivator activity

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