

Recombinant Human HPD, His-tagged

Cat. No. HPD-2842H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human HPD protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques. MW = 47 kDa (413aa) confirmed by MALDI-TOF.
Species	Human
Source	E.coli
Description	4-hydroxyphenylpyruvate dioxygenase isoform 1, also known as HPD, is an Fe-containing enzyme, that catalyzes the second reaction in the catabolism of tyrosine the conversion of 4-hydroxyphenylpyruvate to homogentisate. Existing as a homodimer, HPD uses zinc as a cofactor to catalyze the third step in the conversion of L-phenylalanine to fumarate and acetoacetic acid. Defects in the gene encoding HPD are the cause of tyrosinemia type 3 and hawkinsinuria, both of which are inborn errors of metabolism that are associated with a variety of symptoms, including mental retardation and seizures and hair and urine abnormalities.
Sequences Of Amino Acids	MGSSHHHHHH SSGLVPRGSH MTTYSKDGAK PERGRFLHFH SVTFWVGNAK QAASFYCSKM GFEPLAYRGL ETGSREVVSH VIKQGKIVFV LSSALNPWNK EMGDHLVKHG DGVKDIAFEV EDCDYIVQKA RERGAKIMRE PWVEQDKFGK VKFAVLQTYG DTTHTLVEKM NYIGQFLPGY EAPAFMDPLL PKLPKCSLEM IDHIVGNQPD QEMVSASEWY LKNLQFHRFW SVDDTQVHTE YSSLRSIVVA NYEESIKMPI NEPAPGKKKS QIQEYVDYNG GAGVQHIALK TEDIITAIRH LRERGLEFLS VPSTYYKQLR EKLKTAKIKV KENIDALEEL KILVDYDEKG

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YLLQIFTKPV QDRPTLFLEV IQRHNNHQGFG AGNFNSLFKA FEEEQNLRGN
LTNMETNGVV PGM

Purity > 90% by SDS – PAGE.

Form Liquid. In 20mM Tris-HCl buffer (pH 8.0) containing 1mM DTT, 20% glycerol, 50mM NaCl.

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

GENE INFORMATION

Gene Name [HPD 4-hydroxyphenylpyruvate dioxygenase \[Homo sapiens \]](#)

Synonyms HPD; 4-hydroxyphenylpyruvate dioxygenase; PPD; 4HPPD; GLOD3; 4-HPPD; HPPDASE; glyoxalase domain containing 3; 4-hydroxyphenylpyruvic acid oxidase; EC 1.13.11.27

Gene ID [3242](#)

mRNA Refseq [NM_001171993](#)

Protein Refseq [NP_001165464](#)

MIM [609695](#)

UniProt ID [P32754](#)

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Chromosome Location	12q24-qter
Pathway	Metabolic pathways; Phenylalanine metabolism; Tyrosine metabolism; Ubiquinone and other terpenoid-quinone biosynthesis
Function	4-hydroxyphenylpyruvate dioxygenase activity; metal ion binding; oxidoreductase activity

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