Recombinant Human 4-Hydroxyphenylpyruvate Dioxygenase, His-tagged

Cat. No. HPD-1705H **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.
Species	Human
Source	Human
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.
Concentration	1 mg/ml
Form	Supplied as a liquid in 20mM Tris-HCl buffer, pH 8.0, containing 1mM DTT, 20% glycerol and 50mM NaCl.
Purity	> 90% by SDS - PAGE
Sequence	1-393 amino acids: MGSSHHHHHH SSGLVPRGSH MTTYSDKGAK PERGRFLHFH

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	SVTFWVGNAK QAASFYCSKM GFEPLAYRGL ETGSREVVSH VIKQGKIVFV LSSALNPWNK EMGDHLVKHG DGVKDIAFEV EDCDYIVQKA RERGAKIMRE PWVEQDKFGK VKFAVLQTYG DTTHTLVEKM NYIGQFLPGY EAPAFMDPLL PKLPKCSLEM IDHIVGNQPD QEMV
Molecular Mass	47 kDa (413aa) confirmed by MALDI-TOF
Applications	SDS-PAGE
Storage	Store at 4 deg C for short term storage (1/2 weeks). Aliquot and store at -20 deg C or - 70 deg C for long term storage. Avoid repeated freeze/thaw cycles.

GENE INFORMATION

Gene Name	HPD 4-hydroxyphenylpyruvate dioxygenase [Homo sapiens]
Official Symbol	HPD
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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