

## Recombinant Human HPD/4HPPD Protein (His Tag)

Catalog No. PKSH032028

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

### Description

<b>Synonyms</b>	4-Hydroxyphenylpyruvate Dioxygenase;4-Hydroxyphenylpyruvic Acid Oxidase;4HPPD;HPD;HPPDase;HPD;PPD
<b>Species</b>	Human
<b>Expression Host</b>	E.coli
<b>Sequence</b>	Met 1-Met393
<b>Accession</b>	P32754
<b>Calculated Molecular Weight</b>	47.1 kDa
<b>Observed molecular weight</b>	40-50 kDa
<b>Tag</b>	N-His
<b>Bioactivity</b>	Not validated for activity

### Properties

<b>Purity</b>	> 95 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU per µg of the protein as determined by the LAL method.
<b>Storage</b>	Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.
<b>Shipping</b>	This product is provided as liquid. It is shipped at frozen temperature with blue ice/gel packs. Upon receipt, store it immediately at < -20°C.
<b>Formulation</b>	Supplied as a 0.2 µm filtered solution of 20mM Tris-HCl, 50mM NaCl, 1mM DTT, 20% Glycerol, pH 8.0.
<b>Reconstitution</b>	Not Applicable

### Background

4-Hydroxyphenylpyruvate Dioxygenase (4HPPD) belongs to the 4HPPD family. 4HPPD is a key enzyme in the degradation of tyrosine, which catalyzes the second reaction in the catabolism of tyrosine the conversion of 4-hydroxyphenylpyruvate to homogentisate. 4HPPD exists in homodimer forms, which uses zinc as a cofactor to catalyze the third step in the conversion of L-phenylalanine to fumarate and acetoacetic acid. When the active 4HPPD enzyme concentration is low in the human body, it results in high levels of tyrosine concentration in the blood, which can cause mild mental retardation at birth, and degradation in vision as a patient grows older.

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