Recombinant human HPD protein

Catalog Number: ATGP0755

PRODUCT INFORMATION

Expression system
E.coli

Domain
1-393aa

UniProt No.
P32754

NCBI Accession No.
NP_002141

Alternative Names
4-hydroxyphenylpyruvate dioxygenase isoform 1, 4-HPPD, 4HPPD, GLOD3, HPPDASE, PPD, 4-hydroxyphenylpyruvic acid oxidase, Glyoxalase domain containing 3

PRODUCT SPECIFICATION

Molecular Weight
47 kDa (413aa) confirmed by MALDI-TOF

Concentration
1mg/ml (determined by Bradford assay)

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

Purity
> 90% by SDS-PAGE

Tag
His-Tag

Application
SDS-PAGE

Storage Condition
Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

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

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symptoms, including mental retardation and seizures and hair and urine abnormalities. Recombinant human HPD protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.

Amino acid Sequence

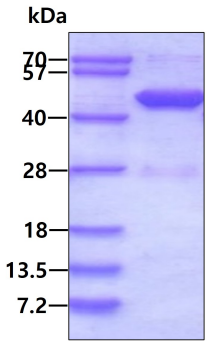
<MGSSHHHHHH SSGLVPRGSH> MTTYSDKGAK PERGRFLHFH SVTFWVGNAK QAASFYCSKM GFEPLAYRGL ETGSREVVSH VIKQGKIVFV LSSALNPWNK EMGDHLVKHG DGVKDIAFEV EDCDYIVQKA RERGAKIMRE PWVEQDKFGK VKFAVLQTYG DTTHTLVEKM NYIGQFLPGY EAPAFMDPLL PKLPKCSLEM IDHIVGNQPD QEMVSASEWY LKNLQFHRFW SVDDTQVHTE YSSLRSIVVA NYEESIKMPI NEPAPGKKKS QIQEYVDYNG GAGVQHIALK TEDIITAIRH LRERGLEFLS VPSTYYKQLR EKLKTAKIKV KENIDALEEL KILVDYDEKG YLLQIFTKPV QDRPTLFLEV IQRHNHQGFG AGNFNSLFKA FEEEQNLRGN LTNMETNGVV PGM

General References

Wada GH., et al. (1975) J Biol Chem J. 250(17):6720-6.
uetschi u., et al. (1997) Genomics. 44:292-299.

DATA

SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.