

HPPD (H-300): sc-98596

BACKGROUND

HPPD (4-hydroxyphenylpyruvate dioxygenase), also known as PPD, GLOD3 or HPD, is a 393 amino acid protein that belongs to the 4HPPD family and is involved in amino acid degradation. Existing as a homodimer, HPPD 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 HPPD are the cause of tyrosinemia type 3 (TYRO3) and hawkinsinuria (HAWK), both of which are inborn errors of metabolism that are associated with a variety of symptoms, including mental retardation and seizures (associated with TYRO3) and hair and urine abnormalities (associated with HAWK). The gene encoding HPPD maps to human chromosome 12, which encodes over 1,100 genes and comprises approximately 4.5% of the human genome.

REFERENCES

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- Stenman, G., et al. 1995. Regional assignment of the human 4-hydroxyphenylpyruvate dioxygenase gene (HPD) to 12q24→qter by fluorescence *in situ* hybridization. *Cytogenet. Cell Genet.* 71: 374-376.
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- Rüetschi, U., et al. 2000. Mutations in the 4-hydroxyphenylpyruvate dioxygenase gene (HPD) in patients with tyrosinemia type III. *Hum. Genet.* 106: 654-662.
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- Item, C.B., et al. 2007. Manifestation of hawkinsinuria in a patient compound heterozygous for hawkinsinuria and tyrosinemia III. *Mol. Genet. Metab.* 91: 379-383.
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CHROMOSOMAL LOCATION

Genetic locus: HPD (human) mapping to 12q24.31; Hpd (mouse) mapping to 5 F.

SOURCE

HPPD (H-300) is a rabbit polyclonal antibody raised against amino acids 1-300 mapping at the N-terminus of HPPD of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

HPPD (H-300) is recommended for detection of HPPD of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

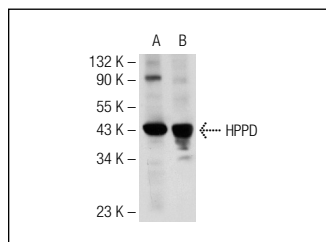
HPPD (H-300) is also recommended for detection of HPPD in additional species, including equine, canine and bovine.

Suitable for use as control antibody for HPPD siRNA (h): sc-75297, HPPD siRNA (m): sc-75298, HPPD shRNA Plasmid (h): sc-75297-SH, HPPD shRNA Plasmid (m): sc-75298-SH, HPPD shRNA (h) Lentiviral Particles: sc-75297-V and HPPD shRNA (m) Lentiviral Particles: sc-75298-V.

Molecular Weight of HPPD: 45 kDa.

Positive Controls: mouse liver extract: sc-2256, rat liver extract: sc-2395 or Hep G2 cell lysate: sc-2227.

DATA



HPPD (H-300): sc-98596. Western blot analysis of HPPD expression in mouse liver (A) and rat liver (B) tissue extracts.

SELECT PRODUCT CITATIONS

- Pan, Y.H., et al. 2013. Adaptation of phenylalanine and tyrosine catabolic pathway to hibernation in bats. *PLoS ONE* 8: e62039.

STORAGE

Store at 4° C, **DO NOT FREEZE** Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

MONOS
Satisfaction
Guaranteed

Try **HPPD (B-11): sc-390279** or **HPPD (F-5): sc-271672**, our highly recommended monoclonal alternatives to HPPD (H-300).