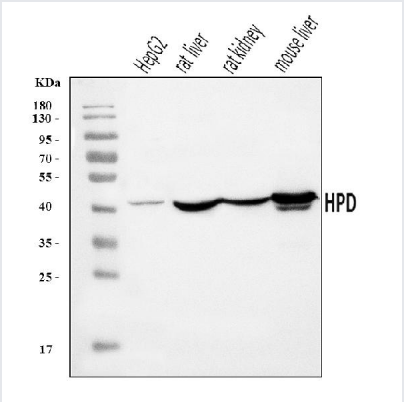
HPD Antibody – Rabbit Polyclonal

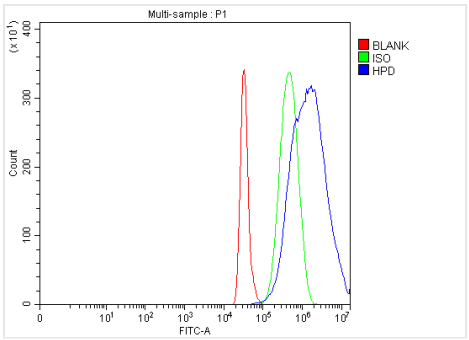
PRODUCT OVERVIEW

Product Name	HPD, Polyclonal Antibody
Full Product Name	Anti-HPD Antibody Picoband
Product Gene Name	anti-HPD antibody
Clonality	Polyclonal
Isotype	Rabbit IgG
Host	Rabbit
Species Reactivity	Human, Mouse, Rat
Form/Format	Lyophilized Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
Purity/Purification	Immunogen affinity purified.
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml. (lot specific)
Preparation and Storage	Store at -20 degree C for one year from date of receipt. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for six months. Avoid repeated freezing and thawing.
Molecular Weight	393
OMIM	phenotype 609695
3D Structure	ModBase 3D Structure for P32754
Reconstitution	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Immunogen	E Coli-derived human HPD recombinant protein (Position: E12-Q357).
Product Categories/Family for anti-HPD antibody	Primary Antibodies, Rabbit Polyclonal Antibodies
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Applications Tested/Suitable for anti-HPD antibody	Western Blot (WB), Immunocytochemistry (ICC), Immunofluorescence (IF), Flow Cytometry (FC/FACS), ELISA (EIA)
Application Notes for anti-HPD antibody	WB: 0.25-0.5 ug/ml, Human, Mouse, Rat ICC/IF: 5 ug/ml, Human FC/FACS: 1-3 ug/1x10^6 cells, Human Direct ELISA: 0.1-0.5 ug/ml, Human Tested Species: In-house tested species with positive results. Enhanced Chemiluminescent Kit with anti-Rabbit IgG (#MBS176460) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (#MBS176453) for ICC.
Related Product Information for anti-HPD antibody	The protein encoded by this gene is an enzyme in the catabolic pathway of tyrosine. The encoded protein catalyzes the conversion of 4-hydroxyphenylpyruvate to homogentisate. Defects in this gene are a cause of tyrosinemia type 3 (TYRO3) and hawkinsinuria (HAWK). Two transcript variants encoding different isoforms have been found for this gene.
Other Notes	Small volumes of anti-HPD antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for HPD purchase	MBS1755153 is an antibody targeting HPD. Also known as Anti-HPD Antibody Picoband. Reactive in Human, Mouse, Rat. Host: Rabbit.



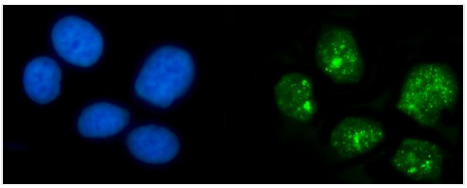
Western Blot (WB) of anti-HPD antibody

Figure 1. Western blot analysis of HPD using anti-HPD antibody (MBS1755153).Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel)/90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.Lane 1: human HepG2 whole cell lysates,Lane 2: rat liver tissue lysates,Lane 3: rat kidney tissue lysates,Lane 4: mouse liver tissue lysates.After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-HPD antigen affinity purified polyclonal antibody (#MBS1755153) at 0.5 ug/mL overnight at 4 degree C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for HPD at approximately 45 kDa. The expected band size for HPD is at 45 kDa.



Flow Cytometry (FC/FACS) of anti-HPD antibody

Figure 3. Flow Cytometry analysis of HepG2 cells using anti-HPD antibody (MBS1755153).Overlay histogram showing HepG2 cells stained with MBS1755153 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-HPD Antibody (MBS1755153, 1 ug/1x10^6 cells) for 30 min at 20 degree C. DyLight488 conjugated goat anti-rabbit IgG (MBS177405, 5-10 ug/1x10^6 cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10^6) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



Immunofluorescence (IF) of anti-HPD antibody

Figure 2. IF analysis of HPD using anti-HPD antibody (MBS1755153).HPD was detected in an immunocytochemical section of HeLa cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 ug/mL rabbit anti-HPD Antibody (MBS1755153) overnight at 4 degree C. DyLight488 Conjugated Goat Anti-Rabbit IgG (MBS177405) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37 degree C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for HPD. It may not necessarily be applicable to this product.

NCBI GI #	417144
NCBI GeneID	3242
NCBI Accession #	P32754.2
UniProt Primary Accession #	P32754
UniProt Secondary Accession #	Q13234; A8K461; B3KQ63
UniProt Related Accession #	P32754
NCBI Official Full Name	4-hydroxyphenylpyruvate dioxygenase

NCBI Official Synonym Full Names	4-hydroxyphenylpyruvate dioxygenase
NCBI Official Symbol	HPD
NCBI Official Synonym Symbols	PPD; 4HPPD; GLOD3; 4-HPPD; HPPDASE
UniProt Protein Name	4-hydroxyphenylpyruvate dioxygenase
UniProt Synonym Protein Names	4-hydroxyphenylpyruvic acid oxidase; 4HPPD; HPD; HPPDase
Protein Family	Probable 4-hydroxyphenylpyruvate dioxygenase
UniProt Gene Name	HPD
UniProt Synonym Gene Names	PPD; 4HPPD; HPD; HPPDase
UniProt Entry Name	HPPD_HUMAN
NCBI Protein Information	4-hydroxyphenylpyruvate dioxygenase; glyoxalase domain containing 3; 4-hydroxyphenylpyruvic acid oxidase
UniProt Comments for HPD	HPD: Key enzyme in the degradation of tyrosine. Defects in HPD are the cause of tyrosinemia type 3 (TYRO3). TYRO3 is an inborn error of metabolism characterized by elevations of tyrosine in the blood and urine, seizures and mild mental retardation. Defects in HPD are a cause of hawkinsinuria (HAWK). HAWK is an inborn error of tyrosine metabolism characterized by failure to thrive, persistent metabolic acidosis, fine and sparse hair, and excretion of the unusual cyclic amino acid metabolite, hawkinsin, in the urine. Belongs to the 4HPPD family. 2 isoforms of the human protein are produced by alternative splicing. Protein type: EC 1.13.11.27; Cofactor and Vitamin Metabolism - ubiquinone and other terpenoid-quinone biosynthesis; Amino Acid Metabolism - phenylalanine; Oxidoreductase; Amino Acid Metabolism - tyrosine Chromosomal Location of Human Ortholog: 12q24.31 Cellular Component: cytosol Molecular Function: 4-hydroxyphenylpyruvate dioxygenase activity; metal ion binding Biological Process: L-phenylalanine catabolic process; tyrosine catabolic process Disease: Hawkinsinuria; Tyrosinemia, Type Iii
Research Articles on HPD	**1.** Glutamine375 has a critical role for 4-HPPD in orientating the tail and ensuring the conformation of the terminal alpha-helix of the enzyme to maintain the integrity of the active site for biocatalysis.
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
Disclaimer	While every efforts were made to ensure the accuracy of the information provided in this datasheet, MyBioSource will not be liable for any omissions or errors contained herein. MyBioSource reserves the right to make changes to this datasheet at any time without prior notice. It is the responsibility of the customer to report product performance issues to MyBioSource within 30 days of receipt of the product. Please visit our Terms & Conditions page for more information.
Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

For Research Use Only. Not for use in diagnostic or therapeutic procedures.