Datasheet for ABIN2855744

anti-HPD antibody

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Overview

Quantity:	100 µL
Target:	HPD
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This HPD antibody is un-conjugated
Application:	Western Blotting (WB)

Product Details

Immunogen:	Recombinant protein encompassing a sequence within the center region of human HPD. The exact sequence is proprietary.
Isotype:	IgG
Cross-Reactivity:	Human
Characteristics:	Rabbit polyclonal antibody to HPD (4-hydroxyphenylpyruvate dioxygenase) HPD antibody [N1C2]
Purification:	Purified by antigen-affinity chromatography.
Grade:	KO Validated

Target Details

Target:	HPD

Target Details

Alternative Name:	4-hydroxyphenylpyruvate dioxygenase (HPD Products)
Background:	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.
Molecular Weight:	45 kDa
Gene ID:	3242
UniProt:	P32754

Application Details

Application Notes:	WB: 1:500-1:3000. Optimal dilutions/concentrations should be determined by the researcher. Not tested in other applications.
Comment:	Positive Control: HepG2 Validation: KO/KD
Restrictions:	For Research Use only

Handling

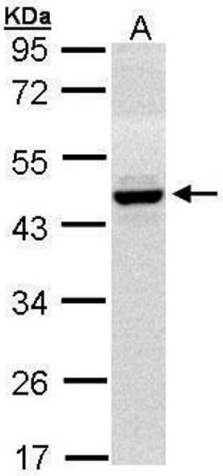
Format:	Liquid
Concentration:	1 mg/mL
Buffer:	0.1M Tris-Glycine (pH 7), 10 % Glycerol, 0.01 % Thimerosal
Preservative:	Thimerosal (Merthiolate)
Precaution of Use:	This product contains Thimerosal (Merthiolate): a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	Store as concentrated solution. Centrifuge briefly prior to opening vial. For short-term storage (1-2 weeks), store at 4°C. For long-term storage, aliquot and store at -20°C or below. Avoid multiple freeze-thaw cycles.

Publications

Product cited in:

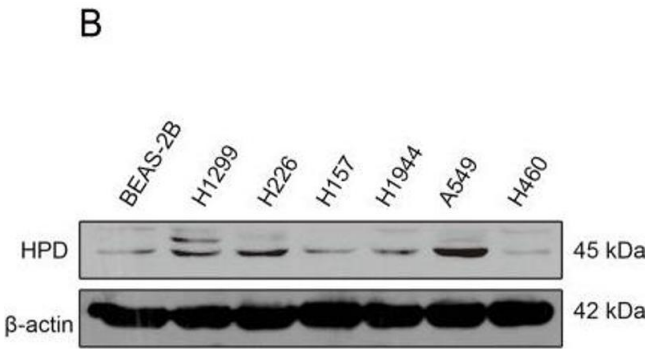
Wei, Ngo, Wu, Lee: "Phosphorylation of the Ndc80 complex protein, HEC1, by Nek2 kinase modulates chromosome alignment and signaling of the spindle assembly checkpoint." in: **Molecular biology of the cell**, Vol. 22, Issue 19, pp. 3584-94, (2012) (PubMed).

Images



Western Blotting

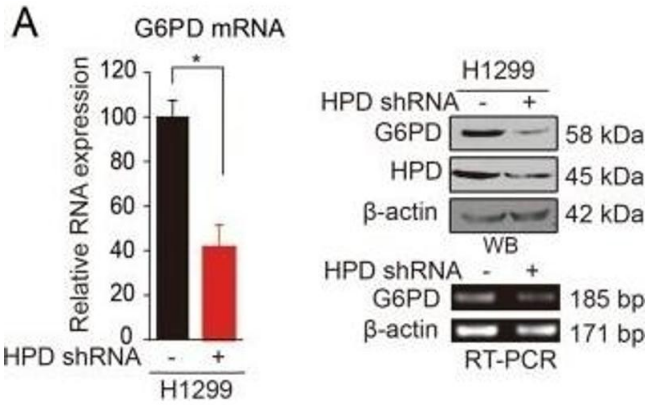
Image 1. WB Image Sample (30 ug of whole cell lysate) A: Hep G2 , 10% SDS PAGE antibody diluted at 1:1000



Western Blotting

Image 2. HPD expression is evaluated in lung cancer and is important for cancer cell proliferation and tumor growth.a HPD protein levels were analyzed in human tissue microarrays of 48 lung cancer tissues and 48 adjacent nontumor lung tissues by IHC staining. b HPD protein levels were analyzed in the majority of a spectrum of diverse human lung cancer cells, including H1944, H460, H1299, H157, H226 cells, and normal proliferating human bronchial epithelial cell line (BEAS-2B). c Cell proliferation rates determined by cell counting in human lung cancer H1299 and H226 cells with stable knockdown of HPD. d Tumor growth was compared between xenograft nude mice injected with HPD-knockdown H1299 cells and control vector cells. The values were given as mean± SD. eLeft: dissected tumors in a representative nude mouse are shown. Right: tumor mass in xenograft nude mice injected with HPD-knockdown H1299 cells compared with mice (n=10) injected with the control vector cells - figure provided

by CiteAb. Source: PMID31285420



Western Blotting

Image 3. HPD contributes to cell proliferation through upregulation of G6PD.a Determination of G6PD mRNA expression levels by qRT-PCR (left), protein levels by western blotting (right upper), and mRNA expression levels by RT-PCR (right lower) in HPD-knockdown and control H1299 cells. b Determination of G6PD mRNA expression levels by qRT-PCR (left), protein levels by western blotting (right upper), and mRNA expression levels by RT-PCR (right lower) in HPD-knockdown and control H226 cells. c-e G6PD knockdown and control cells harboring an empty vector were tested for oxidative PPP flux (c), RNA biosynthesis (d), and NADPH/NADP+ ratio (e). f-g Overexpression of G6PD in HPD-knockdown cells restores decreased oxidative PPP flux (f) and RNA biosynthesis (g). h-i Cell proliferation rates determined by cell counting in human lung cancer H1299 (h) and H226 (i) cells with stable-knockdown HPD and overexpression of G6PD. The error bars represent mean values±SD from three independent experiments (*0.01< p<0.05, **0.001< p<0.01, ***p<0.001) - figure provided by CiteAb. Source: PMID31285420