PDK1 polyclonal antibody

PDK-1 (Pyruvate dehydrogenase kinase-1) is a 48 kDa protein kinase. It is a member of the mitrochondrial matrix protein kinase family and is related to the histidine protein kinases found in prokaryotes. PDK-1 is responsible for phosphorylation and concomitant inactivation of pyruvate dehydrogenase.

This antibody is covered by our Worry-Free Guarantee.

Citations: 33 View Online »

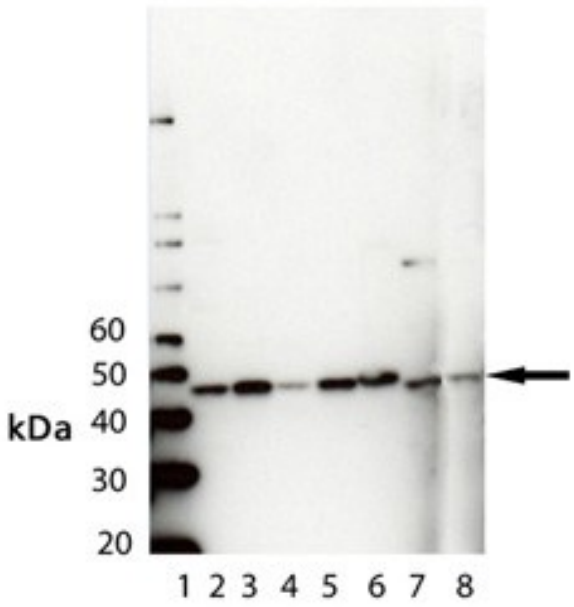
Ordering Information Order Online »

ADI-KAP-PK112-D	50µg
ADI-KAP-PK112-F	200µg

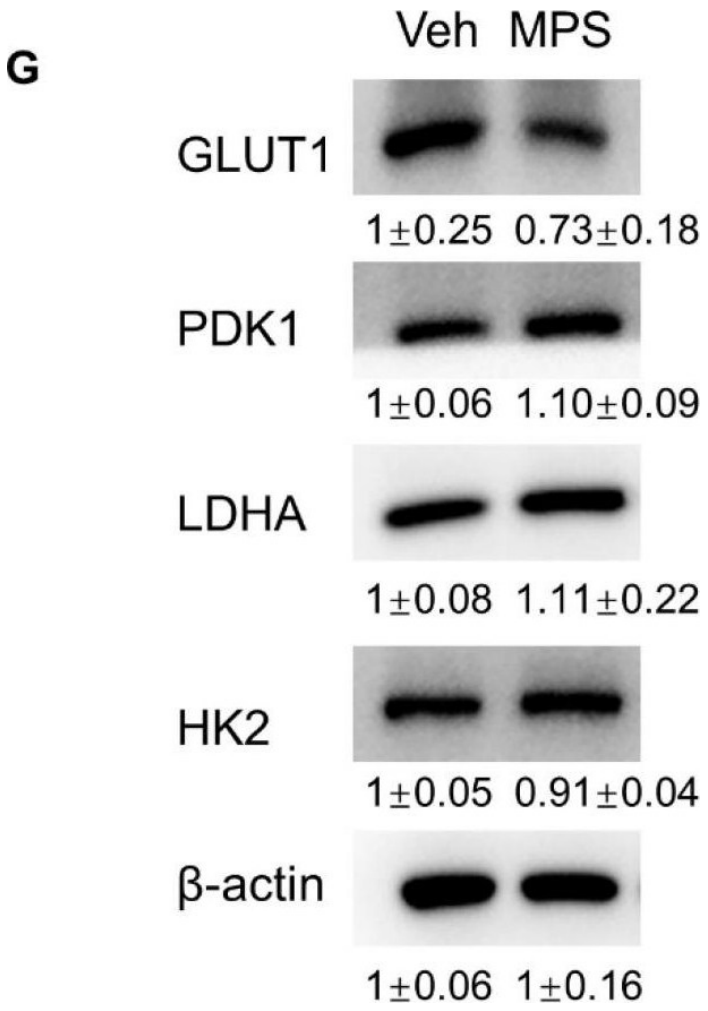
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Immunohistochemistry analysis of human spleen tissue stained with PDK1, pAb at 10µg/ml.

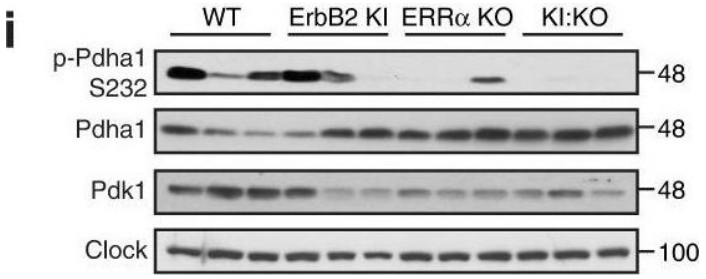


Western blot analysis of PDK1, pAb (Prod. No. KAP-PK112): Lane 1: MW Marker, Lane 2: HeLa Cell Lysate (Prod. No. ADI-LYC-HL100), Lane 3: Rat Brain Lysate (Prod. No. ADI-LYT-RB100), Lane 4: Mouse Brain Lysate (Prod. No. ADI-LYT-MB100), Lane 5: ESK-4 cell Lysate, Lane 6: RK-13 Cell Lysate, Lane 7: MCDK Cell Lysate, Lane 8: Vero Lysate



Methylprednisolone affects the glucose metabolism of Gli1+ progenitors. (A) OCR: oxygen consumption rate; (B) ECAR: extracellular acidification rate; (C–F) basal respiration (C), maximal respiration (D), ATP production (E), and spare respiratory capacity (F). (G) Western blot was performed to detect the protein expression levels of Glut1, PDK1, LDHA, HK2, and β-actin in Gli1-positive cells exposed to vehicle and MPS, respectively. Numbers below the strip denote the grey values (mean ± SD) analyzed by ImageJ version2.1.0. Error bar: SD. * $p < 0.05$, n = 3, Student's t-test.

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Phosphoproteomics identification of ErbB2 and ERRα post-translational control of cardiomyocyte structure and metabolism.a Volcano plots illustrating the significantly up-regulated (red) and down-regulated (blue) phosphopeptides from cardiac phosphoproteomics profiling of mouse models relative to WT (limma, $p < 0.05$, $|FC| \geq 1.5$, n = 5). b Consolidated phosphomotifs generated by PHOSIDA79 of pSer-modified phosphopeptides found differentially expressed in the mouse models compared to WT showing site-specific amino acid preferences adjacent to the central serine phosphorylated residue. c Phosphopeptide sequence motif discovery by the MoMo27 software tool based on the Motif-x28 algorithm along with PhosphoMotif Finder29 predicted phosphomotif-targeting kinases. d Bar chart showing the number of identified DEPPs from (a) harboring up- and/or down-regulated site-specific phosphorylation (limma, $p < 0.05$, $|FC| \geq 1.5$, n = 5). e Schematic showing the cardiomyocyte localization of 25% of DEPPs identified in KI:KO hearts from (d). Both the number and directional change of protein phosphosites are indicated. Sarcomere regions are shown: M, M line; Z, Z line; I, I band; A, A band, H, H zone. f Box plot of relative phosphorylation levels of DEPPs important for cardiomyocyte structural integrity across the genotypes relative to WT (n = 5). g Immunoblot analysis of total and phospho-Cx43 (S368) levels in heart tissue extracts (n = 3). Vinculin levels are shown as a loading control. h Box plot of relative phosphorylation levels of DEPPs important for glucose uptake and catabolism across the genotypes relative to WT (n = 5). i Immunoblot analysis of total and phospho-Pdha1 (S232) levels and its upstream kinase Pdk1 in heart tissue extracts (n = 3). Clock levels are shown as a loading control. j Scatter dot plot of mouse cardiac pyruvate dehydrogenase (PDH) activities (n = 5). Data in (f) and (h) are shown as box and whiskers plots: center line denotes median, box extends from 25th to 75th percentiles, and whiskers extend to the lowest and highest values; *$p < 0.05$, $|FC| \geq 1.5$ by limma relative to WT controls. Data in (j) represent means ± SEM; *$p < 0.05$ by ANOVA. See also Supplementary Fig. 2.

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Handling & Storage

Long Term Storage	-20°C
Shipping	Blue Ice

Regulatory Status RUO - Research Use Only

Product Details

Alternative Name	Pyruvate dehydrogenase kinase
Application	IHC (PS), WB
Application Notes	Detects a band of ~48kDa by Western blot.
Formulation	Liquid. In PBS containing 50% glycerol and 0.09% sodium azide.
GenBank ID	L42450
Host	Rabbit
Immunogen	Synthetic peptide corresponding to a portion of human PDK1 (Pyruvate dehydrogenase kinase-1).
Purity Detail	Protein A affinity purified.
Recommendation Dilutions/Conditions	Western Blot (1:1,000, ECL)Suggested dilutions/conditions may not be available for all applications.Optimal conditions must be determined individually for each application.
Source	Purified from rabbit serum.
Species Reactivity	Dog, Human, Monkey, Mouse, Porcine, Rabbit, Rat
UniProt ID	Q15118
Worry-free Guarantee	**This antibody is covered by our Worry-Free Guarantee .**

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