Product Datasheet

Pyruvate Dehydrogenase E1-alpha subunit [p Ser293] Antibody - BSA Free

NB110-93479

Unit Size: 0.05 ml

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

Reviews: 5 Publications: 57

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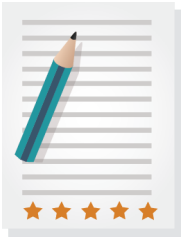
Updated 10/23/2024 v.20.1



NB110-93479

Pyruvate Dehydrogenase E1-alpha subunit [p Ser293] Antibody - BSA Free

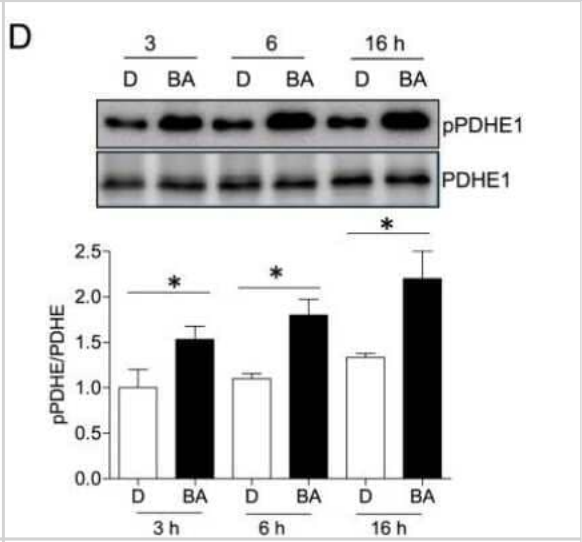
Product Information	
Unit Size	0.05 ml
Concentration	1 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.02% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	PBS (pH 7.4)
Target Molecular Weight	43 kDa

Product Description	
Host	Rabbit
Gene ID	5160
Gene Symbol	PDHA1
Species	Human, Mouse, Rat
Specificity/Sensitivity	This is specific for the phosphorylated Serine 293 form of the PDHE1 alpha protein.
Immunogen	A synthetic peptide surrounding the phosphorylated serine 293 of the human Pyruvate Dehydrogenase E1-alpha subunit protein. [Swiss-Prot: #P08559]

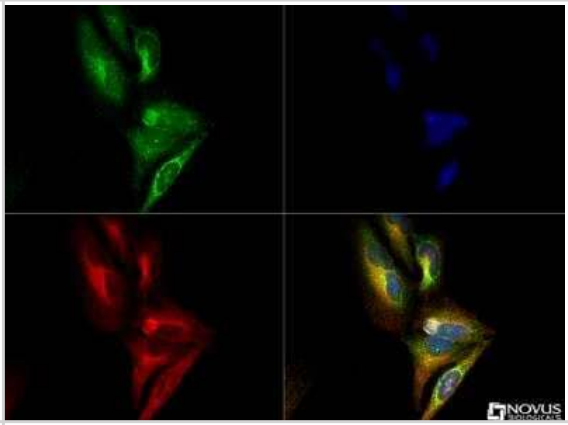
Product Application Details	
Applications	Western Blot, Flow Cytometry, Immunoblotting, Immunocytochemistry/ Immunofluorescence, Immunoprecipitation, Knockout Validated
Recommended Dilutions	Western Blot 1:1000-1:5000, Flow Cytometry reported in scientific literature (PMID 31900478), Immunocytochemistry/ Immunofluorescence 1:50-1:250, Immunoprecipitation reported in scientific literature (PMID 27450723), Immunoblotting, Knockout Validated reported in scientific literature (PMID 31742248)
Application Notes	In Western blot, a band is seen ~43 kDa. It is recommended that BSA rather than non-fat milk be used in membrane blocking and antibody dilution.

Images

Western Blot: Pyruvate Dehydrogenase E1-alpha subunit [p Ser293] Antibody - BSA Free [NB110-93479] - Pyruvate Dehydrogenase E1-alpha subunit [p Ser293] Antibody [NB110-93479] - MEF were treated with 10 uM BA or DMSO (0.1%) for 16 h before they were subjected to a glycolysis stress test as described under "Materials and Methods". MEF were treated with DMSO (0.1%, D) and 10 uM BA for the indicated periods of time before total cell lysates were subjected to immunoblot analyses for pPDHE1 (Ser273) and total PDHE1 (molecular weight 43 kDa). Representative blots out of three experiments are shown. The graph below depicts compiled densitometric values of pPDHE/PDHE. Representative blots out of three independent experiments are shown. The graph below depicts compiled densitometric values of GLUT1/actin and GLUT3/actin, respectively. Image collected and cropped by CiteAb from the following publication (https://dx.plos.org/10.1371/journal.pone.0115683) licensed under a CC-BY license.

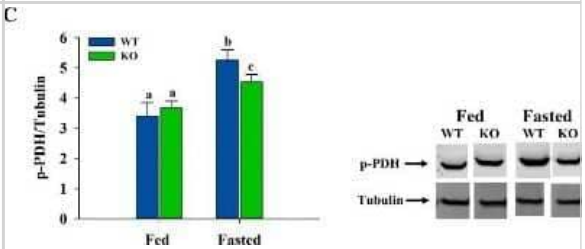


Immunocytochemistry/Immunofluorescence: Pyruvate Dehydrogenase E1-alpha subunit [p Ser293] Antibody [NB110-93479] - Pyruvate Dehydrogenase E1-alpha subunit [p Ser293] antibody (1:250) was tested in HeLa cells with DyLight 488 (green). Nuclei and alpha-tubulin were counterstained with DAPI (blue) and DyLight 550 (red).

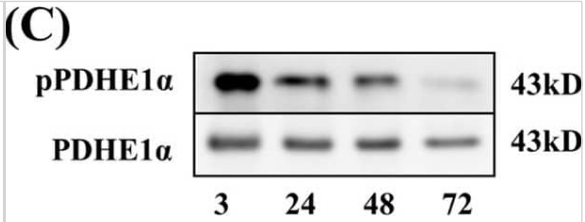


Western Blot: Pyruvate Dehydrogenase E1-alpha subunit [p Ser293] Antibody [NB110-93479] - Detection of PDHE1 alpha [S293] in an in vitro autophosphorylation of PDH complex in response to different stimulants: (-) none, H202-hydrogen peroxide, AR-anhydroretinol, Rol-retinol, RA-retinoic acid, PMA, Lipid-PKC lipid activator. Photo courtesy of Dr. Beatrice Hoyos, Memorial Sloan-Kettering Cancer Center.

Western Blot: Pyruvate Dehydrogenase E1-alpha subunit [p Ser293] Antibody [NB110-93479] - PDH activity and protein levels of PDK4 and p-PDH in hindlimb skeletal muscle. Samples were resolved by electrophoresis, transferred and probed by antibodies and representative immunoblots and normalization of pPDH are presented. The following comparisons were made: within a genotype, fed versus fasted; across genotypes, fed versus fed and fasted versus fasted. Bars that do not share a common symbol differ significantly (P < 0.05). Data presented as mean +/- SEM (n = 6). Image collected and cropped by CiteAb from the following publication (https://dx.plos.org/10.1371/journal.pone.0124204), licensed under a CC-BY license.



Western Blot: Pyruvate Dehydrogenase E1-alpha subunit [p Ser293] Antibody - BSA Free [NB110-93479] - PDK4 expression during syncytialization of human placental trophoblasts. (A) Changes of the RPKM values for PDK family members in trophoblasts before (red column, 3 hours) & after (blue column, 48 hours) syncytialization. (B) Changes in PDK4 mRNA (black column, n = 4) & protein (white column, n = 4) abundance during syncytialization. (C) Changes in the phosphorylation of PDHE1α during syncytialization n = 4. (D) Representative images showing intense staining of PDK4 (red) in the cytotrophoblast layer & weak staining of PDK4 in the syncytial layer of human chorionic villi at early gestation. The syncytial & cytotrophoblast layers were labeled with β-hCG (green) & SPINT1 (green) respectively. Nuclei were counterstained with DAPI (blue). n = 3; *P < 0.05; **P < 0.01; ***P < 0.001 against 3 hours; n.s., not significant. Image collected & cropped by CiteAb from the following publication (https://www.nature.com/articles/s41598-017-09163-8), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Huo J, Prasad V, Grimes KM et al. MCUb is an inducible regulator of calcium-dependent mitochondrial metabolism and substrate utilization in muscle Cell reports 2023-11-28 [PMID: 37976157]

Li Y, Cai J, Liu Y et al. CcpA-Knockout Staphylococcus aureus Induces Abnormal Metabolic Phenotype via the Activation of Hepatic STAT5/PDK4 Signaling in Diabetic Mice Pathogens 2023-10-30 [PMID: 38003764] (WB, Mouse)

Abdon B The Role of Endoplasmic Reticulum Associated Degradation in Skeletal Muscle Growth and Metabolism Thesis 2023-01-01 (IHC-FrFl, IHC-Fr, Mouse)

Bekeova C, Han JI, Xu H et al. Acyl-CoA thioesterase-2 facilitates ?-oxidation in glycolytic skeletal muscle in a lipid supply dependent manner bioRxiv : the preprint server for biology 2023-06-27 [PMID: 37425757] (WB, Mouse)

Rossi SP, Matzkin ME, Riviere E et al. Melatonin improves oxidative state and lactate metabolism in rodent Sertoli cells Molecular and cellular endocrinology 2023-07-27 [PMID: 37516434] (WB, Human)

Details:
1:1000 WB dilution

Li J, Zhu X, Oberdier MT et al. A cell-penetrating PHLPP peptide improves cardiac arrest survival in murine and swine models The Journal of clinical investigation 2023-05-01 [PMID: 37115695] (WB, Mouse)

Holloway C, Zhong G, Kim YK et al. Retinoic acid regulates pyruvate dehydrogenase kinase 4 (Pdk4) to modulate fuel utilization in the adult heart: Insights from wild-type and beta-carotene 9',10' oxygenase knockout mice FASEB journal : official publication of the Federation of American Societies for Experimental Biology 2022-09-01 [PMID: 36004605] (WB, Mouse)

Gatie M, Cooper T, Khazaee R et al. Lactate enhances mouse ES cell differentiation towards XEN cells in vitro Stem Cells 2022-03-24 [PMID: 35323987]

Ito N, Takatsu A, Ito H et al. Slc12a8 in the lateral hypothalamus maintains energy metabolism and skeletal muscle functions during aging Cell reports 2022-07-26 [PMID: 35905718] (WB, Mouse)

Details:
1:4000 dilution

Li J, Chang WT, Qin G et al. Baicalein Preconditioning Cardioprotection Involves Pro-Oxidant Signaling and Activation of Pyruvate Dehydrogenase The American journal of Chinese medicine 2022-06-23 [PMID: 35748215]

Martin A, Fernandez M, Cattaneo E et al. Type 1 Insulin-Like Growth Factor Receptor Nuclear Localization in High-Grade Glioma Cells Enhances Motility, Metabolism, and In Vivo Tumorigenesis Frontiers in Endocrinology [PMID: 35574033] (WB, Human)

Kanan Y, Hackett SF, Taneja K et al. Oxidative stress-induced alterations in retinal glucose metabolism in Retinitis Pigmentosa Free radical biology & medicine 2022-03-01 [PMID: 35134532] (WB, Mouse)

More publications at http://www.novusbio.com/NB110-93479

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Products Related to NB110-93479

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NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control

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