Product Datasheet

PDK1 Rabbit mAb

Catalog No: #49573

Package Size: #49573-1 50ul #49573-2 100ul

Orders: order@signalwayantibody.com
Support: tech@signalwayantibody.com

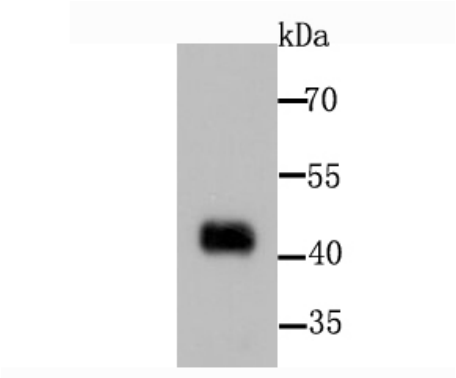
Description

Product Name	PDK1 Rabbit mAb
Host Species	Recombinant Rabbit
Clonality	Monoclonal antibody
Clone No.	JA67-30
Purification	ProA affinity purified
Applications	WB, IHC, IP, FC
Species Reactivity	Human;Mouse;Rat
Immunogen Description	recombinant protein
Conjugates	Unconjugated
Accession No.	Swiss-Prot#:Q15118
Calculated MW	49 kDa
Formulation	1*TBS (pH7.4), 1%BSA, 40%Glycerol. Preservative: 0.05% Sodium Azide.
Storage	Store at -20°C

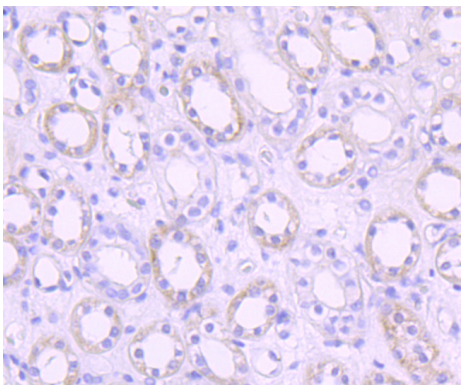
Application Details

WB: 1:500-1:2,000IHC: 1:50-1:200 ICC:1:50-1:200FC: 1:50-1:100

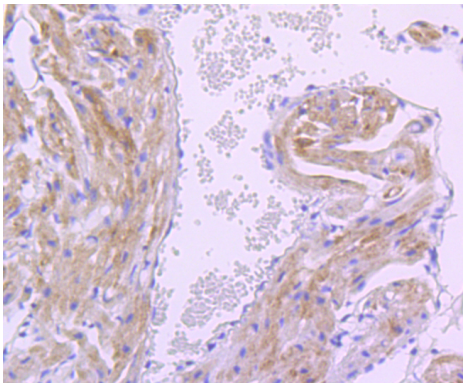
Images



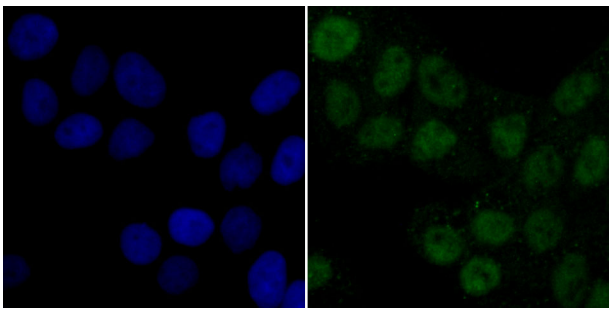
Western blot analysis of PDK1 on rat heart tissue lysate using anti-PDK1 antibody at 1/1,000 dilution.



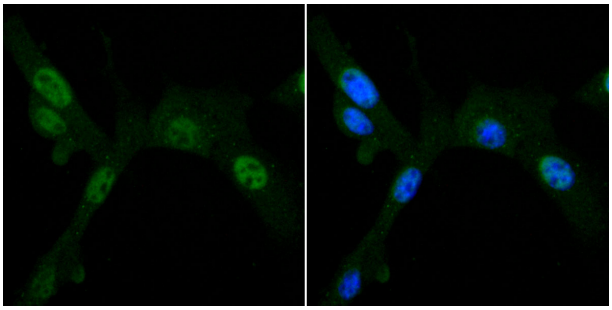
Immunohistochemical analysis of paraffin-embedded human kidney tissue using anti-PDK1 antibody. Counter stained with hematoxylin.



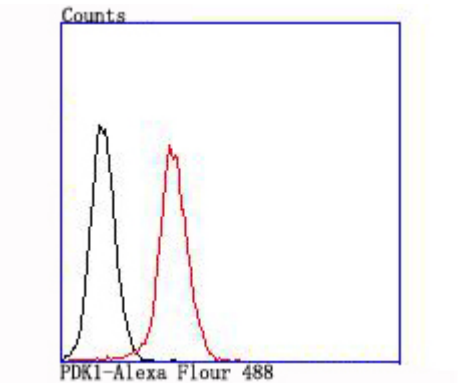
Immunohistochemical analysis of paraffin-embedded mouse heart tissue using anti-PDK1 antibody. Counter stained with hematoxylin.



ICC staining PDK1 in Hela cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.



ICC staining PDK1 in NIH-3T3 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.



Flow cytometric analysis of NIH-3T3 cells with PDK1 antibody at 1/100 dilution (red) compared with an unlabelled control (cells without incubation with primary antibody; black).

Background

Mitochondrial pyruvate dehydrogenase (PDH) catalyzes the oxidative decarboxylation of pyruvate and plays a central role in the regulation of homeostasis of carbohydrate fuels in mammals. PDH activity is controlled by a phosphorylation/dephosphorylation cycle, phosphorylation leading to inactivation and dephosphorylation leading to reactivation of PDH. The phosphorylation of PDH is catalyzed by pyruvate dehydrogenase kinase (PDK), the activity of which is stimulated by the products of PDH catalysis. PDK1 consists of alpha and beta subunits; the kinase activity resides in the alpha subunit. Three PDK isoenzymes have been identified in humans (PDK1, 2 and 3) and two have been identified in rodent (PDK1 and 2).

References

1. Du L ?et al.?Overexpression of PIK3CA in murine head and neck epithelium drives tumor invasion and metastasis through PDK1 and enhanced TGF? signaling.?Oncogene?35:4641-52 (2016).
2. Lelliott CJ et al. Monoclonal antibody targeting of fibroblast growth factor receptor 1c ameliorates obesity and glucose intolerance via central mechanisms. PLoS One 9:e112109 (2014).

Published Papers

el at., Identification of lactate metabolism-related genes for glioma metabolic reprogramming, , (2022)

PMID:

Tang XiYang, Zhang RunZe, Feng ZhiBo, Zhou YuLong, Du WeiGuang, Shu Chen, Shen Yang, Li MengChao, Cai JunChao, Yan XiaoLong, Ma Nan, Zhao JinBo el at., FGL1-mediated lymph node metastasis in stage T1 non-small cell lung cancer: therapeutic targeting, Experimental Hematology & Oncology, (2025)

PMID:41024301

Note: This product is for in vitro research use only and is not intended for use in humans or animals.