

For Research Use Only

# Phospho-PDH E1 Alpha (Ser232) Polyclonal antibody

Catalog Number: 29582-1-AP

6 Publications



## Basic Information

Catalog Number:

29582-1-AP

Size:

100ul, Concentration: 240 ug/ml by Nanodrop;

Source:

Rabbit

Isotype:

IgG

GenBank Accession Number:

BC002406

GeneID (NCBI):

5160

UNIPROT ID:

P08559

Full Name:

pyruvate dehydrogenase (lipoamide)  
alpha 1

Calculated MW:

43 kDa

Observed MW:

40 kDa

Purification Method:

Antigen affinity purification

Recommended Dilutions:

WB 1:1000-1:8000

IF/ICC 1:50-1:500

## Applications

Tested Applications:

WB, IF/ICC, ELISA

Cited Applications:

WB, IF

Species Specificity:

Human

Cited Species:

human, mouse

Positive Controls:

WB : HeLa cells, Serum-free treated HeLa cells, 10 % fetal bovine serum treated HeLa cells

IF/ICC : λ phosphatase treated HepG2 cells,

## Background Information

PDH E1 Alpha (PDHA1), as the major component of PDH, can be phosphorylated and inactivated by PDHK1. PDHA1 contains three serine residues (Ser232, Ser293, or Ser300) that can be reversibly phosphorylated by a dedicated family of four inhibitory pyruvate dehydrogenase kinases (PDHK1-4) and two reactivating phosphatases (PDP1, 2). Hypoxia induces the expression of PDHK1 and PDHK3 and hyperphosphorylates PDHA1. Phosphorylated PDHA1 inactivates the whole pyruvate dehydrogenase complex (PDC), reduces pyruvate entering into the tricarboxylic acid (TCA) cycle for oxidative phosphorylation, enhances the Warburg effect and promotes tumorigenesis. (PMID: 30993888, PMID: 34749809)

## Notable Publications

Author	Pubmed ID	Journal	Application
Menglong Wang	35647084	Front Cardiovasc Med	WB
Jie Wang	39550366	Nat Commun	WB
Stephanie Zur Nedden	39332493	Metabolism	WB

## Storage

Storage:

Store at -20°C. Stable for one year after shipment.

Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

\*\*\* 20ul sizes contain 0.1% BSA

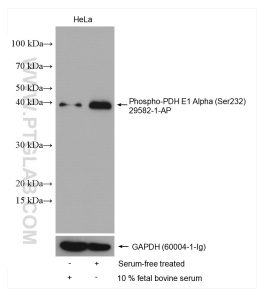
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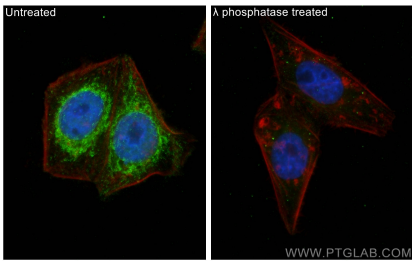
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## Selected Validation Data



10 % fetal bovine serum treated HeLa cells and Serum-free treated HeLa cells were subjected to SDS PAGE followed by western blot with 29582-1-AP (Phospho-PDH E1 Alpha (Ser232) antibody) at dilution of 1:4000 incubated at room temperature for 1 hours. The membrane was stripped and re-blotted with GAPDH antibody as loading control.



Immunofluorescent analysis of (4% PFA) fixed  $\lambda$  phosphatase treated HepG2 cells using Phospho-PDH E1 Alpha (Ser232) antibody (29582-1-AP) at dilution of 1:200 and CoraLite@488-Conjugated Goat Anti-Rabbit IgG(H+L), CL594-Phalloidin (red).