

For Research Use Only

# Phospho-PDH E1 Alpha (Ser300) Recombinant antibody

Catalog Number: 80572-1-RR

2 Publications



## Basic Information

Catalog Number:

80572-1-RR

Concentration:

1000  $\mu$ g/ml

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:

Protein A purification

CloneNo.:

2E19

Recommended Dilutions:

WB 1:5000-1:50000

IF/ICC 1:500-1:2000

## Applications

Tested Applications:

WB, IF/ICC, ELISA

Cited Applications:

WB, IP

Species Specificity:

human, mouse, rat

Cited Species:

human, mouse

Positive Controls:

WB : HeLa cells, HSC-T6 cells, NIH/3T3 cells, Calyculin A treated HeLa cells, Calyculin A treated HEK-293 cells, Calyculin A treated HSC-T6 cells, Calyculin A treated NIH/3T3 cells

IF/ICC :  $\lambda$  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
Wenwen Li	39700269	Science	WB, IP
Jie Wang	39550366	Nat Commun	WB

## Storage

Storage:

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

Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol

Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:

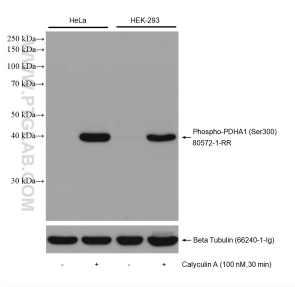
T: 4006900926

E: [Proteintech-CN@ptglab.com](mailto:Proteintech-CN@ptglab.com)

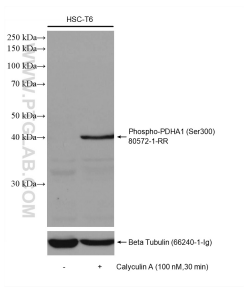
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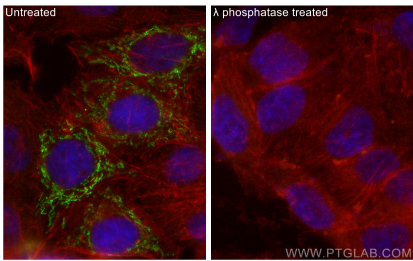
## Selected Validation Data



Non-treated and Calyculin A treated cells were subjected to SDS PAGE followed by western blot with 80572-1-RR (Phospho-PDH E1 Alpha (Ser300) antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours. The membrane was stripped and re-blotted with Beta Tubulin antibody as loading control.



Non-treated and Calyculin A treated HSC-T6 cells were subjected to SDS PAGE followed by western blot with 80572-1-RR (Phospho-PDH E1 Alpha (Ser300) antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours. The membrane was stripped and re-blotted with Beta Tubulin antibody as loading control.



Immunofluorescent analysis of (4% PFA) fixed  $\lambda$  phosphatase treated HepG2 cells using Phospho-PDH E1 Alpha (Ser300) antibody (80572-1-RR, Clone: 2E19) at dilution of 1:1000 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L), CL594-Phalloidin (red).