

For Research Use Only

Phospho-PDH E1 Alpha (Ser300) Recombinant antibody



Catalog Number: 80572-1-RR

Basic Information

Catalog Number: 80572-1-RR	GenBank Accession Number: BC002406	Purification Method: Protein A purification
Size: 100ul , Concentration: 1000 µg/ml by Nanodrop;	GeneID (NCBI): 5160	CloneNo.: 2E19
Source: Rabbit	Full Name: pyruvate dehydrogenase (lipoamide) alpha 1	Recommended Dilutions: WB 1:5000-1:50000 IF 1:500-1:2000
Isotype: IgG	Calculated MW: 43 kDa	
	Observed MW: 40 kDa	

Applications

Tested Applications:
IF, WB, ELISA

Species Specificity:
Human, mouse, rat

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: 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)

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.

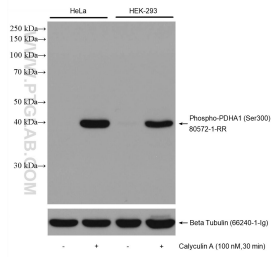
Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

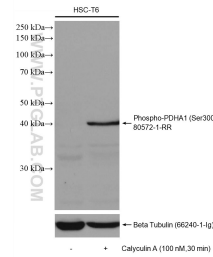
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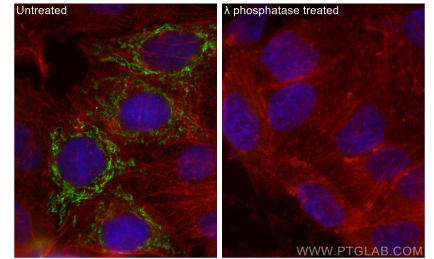
Selected Validation Data



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 λ 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).