

For Research Use Only

Phospho-PDH E1 Alpha (Ser232) Polyclonal antibody



Catalog Number: 29582-1-AP

4 Publications

Basic Information

Catalog Number: 29582-1-AP	GenBank Accession Number: BC002406	Purification Method: Antigen affinity purification
Size: 100ul , Concentration: 240 µg/ml by Nanodrop;	GeneID (NCBI): 5160	Recommended Dilutions: WB 1:1000-1:8000 IF 1:50-1:500
Source: Rabbit	Full Name: pyruvate dehydrogenase (lipoamide) alpha 1	
Isotype: IgG	Calculated MW: 43 kDa	
	Observed MW: 40 kDa	

Applications

Tested Applications:

IF, WB, ELISA

Cited Applications:

IF, WB

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: 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
Zhouji Ma	38001078	Cell Death Discov	IF
Zhouji Ma	37737961	FASEB J	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

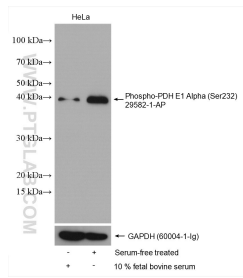
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

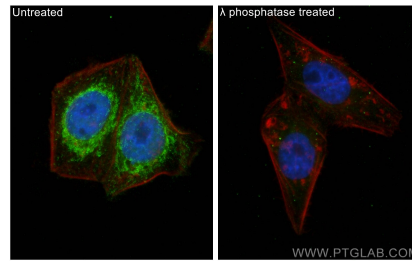
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Selected Validation Data



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 λ phosphatase treated HepG2 cells using Phospho-PDH E1 Alpha (Ser232) antibody (29582-1-AP) at dilution of 1:200 and CoraLite@488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L), CL594-Phalloidin (red).