

For Research Use Only

Phospho-PDH E1 Alpha (Ser232) Recombinant antibody

Catalog Number: 81491-1-RR

1 Publications



Basic Information

Catalog Number:

81491-1-RR

Size:

100ul, Concentration: 500 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:

Protein A purification

CloneNo.:

1L22

Recommended Dilutions:

WB: 1:5000-1:50000

FC (Intra): 0.06 ug per 10⁶ cells in a 100 µl suspension

Applications

Tested Applications:

WB, FC (Intra), ELISA

Cited Applications:

WB

Species Specificity:

human

Cited Species:

human

Positive Controls:

WB : HEK-293T cells, λ phosphatase HEK-293T cells

FC (Intra) : λ phosphatase treated HEK-293T 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
Ning Zhang	40180922	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, pH7.3

Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

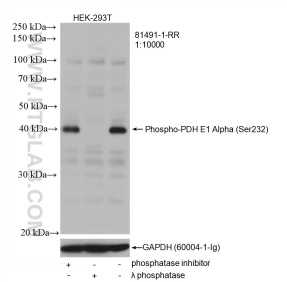
For technical support and original validation data for this product please contact:

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

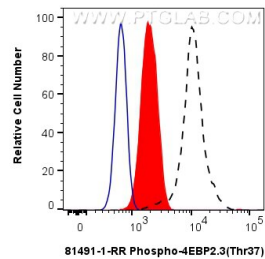
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Selected Validation Data



Non-treated HEK-293T cells, phosphatase inhibitor treated and λ phosphatase HEK-293T cells were subjected to SDS PAGE followed by western blot with 81491-1-RR (Phospho-PDH E1 Alpha (Ser232) antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours. The membrane was stripped and re-blotted with GAPDH antibody as loading control.



1X10⁶ HEK-293T cells untreated (dashed lines) or treated with λ phosphatase which intracellularly stained with 0.06 ug Phospho-PDH E1 Alpha (Ser232) Recombinant antibody (81491-1-RR, Clone:1L22) and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2)(red), or 0.06 ug Rabbit IgG Isotype Control Recombinant Antibody (98136-1-RR, Clone: 240953C9) (blue). Cells were fixed with 4% PFA and permeabilized with 90% MeOH.