

For Research Use Only

# Phospho-PDH E1 Alpha (Ser232) Recombinant antibody



Catalog Number: 81491-1-RR

## Basic Information

<b>Catalog Number:</b> 81491-1-RR	<b>GenBank Accession Number:</b> BC002406	<b>Purification Method:</b> Protein A purification
<b>Size:</b> 100ul , Concentration: 500 µg/ml by Nanodrop;	<b>GeneID (NCBI):</b> 5160	<b>CloneNo.:</b> 1L22
<b>Source:</b> Rabbit	<b>Full Name:</b> pyruvate dehydrogenase (lipoamide) alpha 1	<b>Recommended Dilutions:</b> WB 1:5000-1:50000
<b>Isotype:</b> IgG	<b>Calculated MW:</b> 43 kDa	
	<b>Observed MW:</b> 40 kDa	

## Applications

### Tested Applications:

WB, ELISA

### Species Specificity:

Human

### Positive Controls:

WB : HEK-293T cells, λ phosphatase 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)

## 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

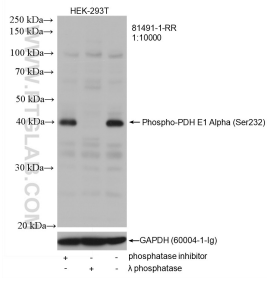
For technical support and original validation data for this product please contact:

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## Selected Validation Data



Non-treated HEK-293T cells, phosphatase inhibitor treated and  $\lambda$  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.