For Research Use Only

Phospho-PDH E1 Alpha (Ser232) Recombinant antibody, PBS Only

Catalog Number:81491-1-PBS

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Basic Information

Catalog Number:
81491-1-PBS

Size:
1 mg/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.:
1L22

Applications

Tested Applications:
WB,Indirect ELISA

Species Specificity:
Human

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 -80°C.
Storage Buffer:
PBS Only

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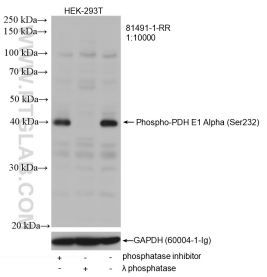
Selected Validation Data



Non-treated HEK-293T cells, phosphatase inhibitor treated and 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. This data was developed using the same antibody clone with 81491-1-PBS in a different storage buffer formulation.