For Research Use Only

Phospho-PDH E1 Alpha (Ser300) Recombinant antibody, PBS Only

Catalog Number:80572-1-PBS



Purification Method:

Protein A purification

CloneNo.:

2E19

Basic Information

Catalog Number: 80572-1-PBS

Concentration: 1 mg/ml Source: Rabbit

Isotype:

Calculated MW: 43 kDa

Observed MW: 40 kDa

BC002406

5160

P08559 Full Name:

alpha 1

GeneID (NCBI):

UNIPROT ID:

GenBank Accession Number:

pyruvate dehydrogenase (lipoamide)

Applications

Tested Applications: WB, IF/ICC, Indirect ELISA Species Specificity: human, mouse, rat

Background Information

PDH E1 Alpha (PDHA1), as the major component of PDH, can be phosphorylated and inactivated by PDHK1. PDHA1 $contains \ three \ serine \ residues \ (Ser 232, Ser 293, or Ser 300) \ that \ can \ be \ reversibly \ phosphory lated \ by \ a \ dedicated$ 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

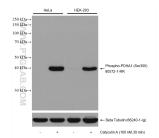
Storage:

Store at -80°C.

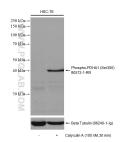
The product is shipped with ice packs. Upon receipt, store it immediately at -80°C Storage Buffer:

PBS only

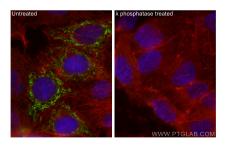
Selected Validation Data



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. This data was developed using the same antibody clone with 80572-1-PBS in a different storage buffer formulation.



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. This data was developed using the same antibody clone with 80572-1-PBS in a different storage buffer formulation.



Immunofluorescent analysis of (4% PFA) fixed $^\lambda$ 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 1gG(H+L), CL594-Phalloidin (red). This data was developed using the same antibody clone with 80572-1-PBS in a different storage buffer formulation.