

Product Name: KO-Validated PDP1 Mouse Oligoclonal Antibody**Catalog #: KVA00143**

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Mouse
Application	WB,FCM,ICC
Reactivity	Human,Mouse,Rat
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Mouse IgG
Clonality	Mouse oligoclonal antibody
Form	Liquid
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:500-1:2,500; FC 1:200-1:2,000; ICC 1:100-1:1,000
Molecular Weight	Calculated MW: 61.1kDa

Antigen Information

Gene Name	PDP1
Alternative Names	PDP1; Pyruvate Dehydrogenase Phosphatase Catalytic Subunit 1; PDP; PPM2A; PPM2C; PDH; [Pyruvate Dehydrogenase [Acetyl-Transferring]]-Phosphatase 1, Mitochondrial; Protein Phosphatase 2C, Magnesium-Dependent, Catalytic Subunit; Protein Phosphatase, Mg ²⁺ /Mn ²⁺ Dependent 2A; EC 3.1.3.43; PDPC 1; Pyruvate Dehydrogenase (Lipoamide) Phosphatase-Phosphatase; Pyruvate Dehydrogenase Phosphatase Catalytic Subunit 1; Protein Phosphatase 2C; EC 3.1.3; PDP 1; PDPC
Gene ID	54704.0
SwissProt ID	Q9P0J1
Immunogen	Recombinant protein of human PDP1

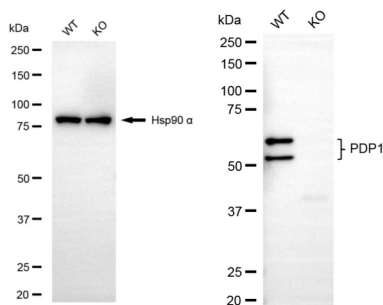
Background

Pyruvate dehydrogenase (E1) is one of the three components (E1, E2, and E3) of the large pyruvate dehydrogenase complex. Pyruvate dehydrogenase kinases catalyze phosphorylation of serine residues of E1 to inactivate the E1 component and inhibit the complex. Pyruvate dehydrogenase phosphatases catalyze the dephosphorylation and activation of the E1 component to reverse the effects of pyruvate dehydrogenase kinases. Pyruvate dehydrogenase phosphatase is a heterodimer consisting of catalytic and regulatory subunits. Two catalytic subunits have been reported; one is predominantly expressed in skeletal muscle and another one is much more abundant in the liver. The catalytic subunit, encoded by this gene, is the former, and belongs to the protein phosphatase 2C (PP2C) superfamily. Along with the pyruvate dehydrogenase complex and pyruvate dehydrogenase kinases, this enzyme is located in the mitochondrial matrix. Mutation in this gene causes pyruvate dehydrogenase phosphatase deficiency. Multiple alternatively spliced transcript variants encoding different isoforms have been identified.[provided by RefSeq, Jun 2009]

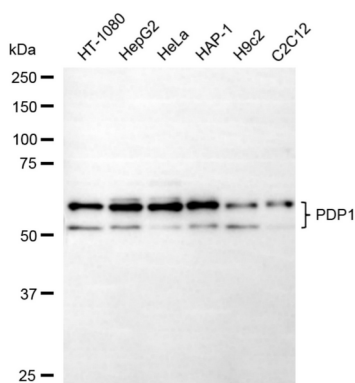
Research Area

Tags & Cell Markers, Signal Transduction, Cancer, Metabolism

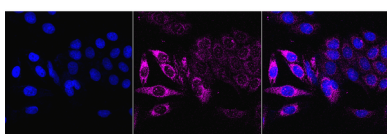
Image Data



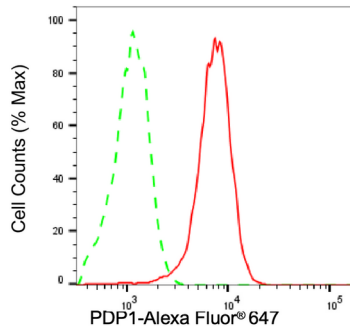
Western blotting analysis using PDP1 antibody (KVA00143). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with PDP1 antibody (KVA00143, 1:2,500) and HRP-conjugated goat anti-mouse secondary antibody (APS0631, 1:10,000) respectively.



Immunocytochemical staining of HepG2 cells with PDP1 antibody (KVA00143, 1:1,000). Nuclei were stained blue with DAPI; PDP1 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser intensity and smart gain: Low. Scale bar, 20 µm.



Immunocytochemical staining of HepG2 cells with PDP1 antibody (KVA00143, 1:1,000). Nuclei were stained blue with DAPI; PDP1 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser intensity and smart gain: Low. Scale bar, 20 µm.



Flow cytometric analysis of PDP1 expression in HepG2 cells using PDP1 antibody (KVA00143, 1:2,000). Green, isotype control; red, PDP1.