
Product Name: KD-Validated Pyruvate Dehydrogenase Kinase 1 Recombinant Rabbit Monoclonal Antibody**Catalog #: KVA00941**

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC
Reactivity	Human,Mouse,Rat
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Rabbit IgG
Clonality	Rabbit mAb
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 1:1,000-1:5,000; FC 1:200-1:2,000; ICC 1:100-1:1,000
Molecular Weight	Calculated MW: 49.2kDa

Antigen Information

Gene Name	PDK1
Alternative Names	Pyruvate Dehydrogenase Kinase 1; [Pyruvate Dehydrogenase (Acetyl-Transferring)] Kinase Isozyme 1, Mitochondrial; Pyruvate Dehydrogenase Kinase, Isoenzyme 1; PDH Kinase 1; EC 2.7.11.2; Pyruvate Dehydrogenase (Acetyl-Transferring) Kinase Isozyme 1, Mitochondrial; Mitochondrial Pyruvate Dehydrogenase, Lipoamide, Kinase Isoenzyme 1; Pyruvate Dehydrogenase Kinase, Isozyme 1; Pyruvate Dehydrogenase Kinase Isoform 1; EC 2.7.11; PDHK1
Gene ID	5163.0
SwissProt ID	Q15118
Immunogen	A synthesized peptide derived from human PDK1

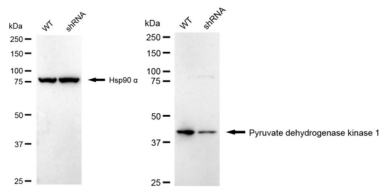
Background

Pyruvate dehydrogenase (PDH) is a mitochondrial multienzyme complex that catalyzes the oxidative decarboxylation of pyruvate and is one of the major enzymes responsible for the regulation of homeostasis of carbohydrate fuels in mammals. The enzymatic activity is regulated by a phosphorylation/dephosphorylation cycle. Phosphorylation of PDH by a specific pyruvate dehydrogenase kinase (PDK) results in inactivation. Multiple alternatively spliced transcript variants have been found for this gene. [provided by RefSeq, Jun 2013]

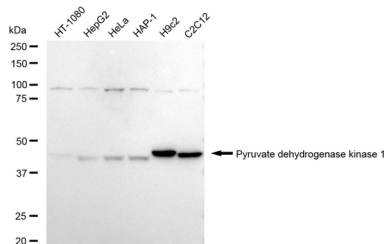
Research Area

Signal Transduction,Cancer,Metabolism

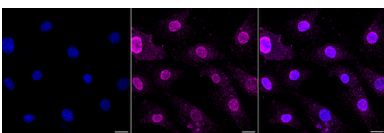
Image Data



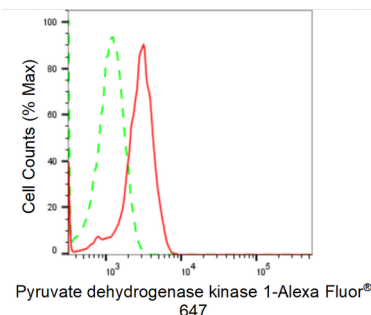
Western blotting analysis using Pyruvate dehydrogenase kinase 1 antibody (KVA00941). Pyruvate dehydrogenase kinase 1 expression in wild type (WT) and Pyruvate dehydrogenase kinase 1 shRNA knockdown (KD) HT-1080 cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with Pyruvate dehydrogenase kinase 1 antibody (KVA00941, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Western blotting analysis using Pyruvate dehydrogenase kinase 1 antibody (KVA00941). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with Pyruvate dehydrogenase kinase 1 antibody (KVA00941, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Immunocytochemical staining of H9c2 cells with Pyruvate dehydrogenase kinase 1 antibody (KVA00941, 1:1,000). Nuclei were stained blue with DAPI; Pyruvate dehydrogenase kinase 1 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar, 20 µm.



Flow cytometric analysis of Pyruvate dehydrogenase kinase 1 expression in H9c2 cells using Pyruvate dehydrogenase kinase 1 antibody (KVA00941, 1:2,000). Green, isotype control; red, Pyruvate dehydrogenase kinase 1.