

Product Name: KD-Validated PDHA1 Recombinant Rabbit Monoclonal Antibody**Catalog #: KVA01330**

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: 43.3kDa

Antigen Information

Gene Name	PDHA1 PDHA1; Pyruvate Dehydrogenase E1 Subunit Alpha 1; Pyruvate Dehydrogenase E1 Component Subunit Alpha, Somatic Form, Mitochondria; E1alpha; Pyruvate Dehydrogenase
Alternative Names	(Lipoamide) Alpha 1; Pyruvate Dehydrogenase Alpha 1; PDHE1-A Type I; EC 1.2.4.1; PHE1A; PDHA; Pyruvate Dehydrogenase Complex, E1-Alpha Polypeptide 1; Pyruvate Dehydrogenase E1 Alpha 1 Subunit; PDHCE1A; PDHAD
Gene ID	5160.0
SwissProt ID	P08559
Immunogen	A synthesized peptide derived from human PDHA1

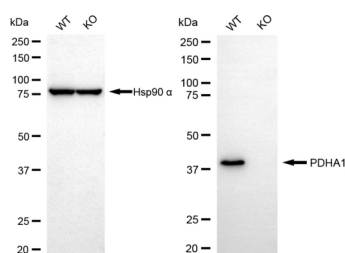
Background

The pyruvate dehydrogenase (PDH) complex is a nuclear-encoded mitochondrial multienzyme complex that catalyzes the overall conversion of pyruvate to acetyl-CoA and CO₂, and provides the primary link between glycolysis and the tricarboxylic acid (TCA) cycle. The PDH complex is composed of multiple copies of three enzymatic components: pyruvate dehydrogenase (E1), dihydrolipoamide acetyltransferase (E2) and lipoamide dehydrogenase (E3). The E1 enzyme is a heterotetramer of two alpha and two beta subunits. This gene encodes the E1 alpha 1 subunit containing the E1 active site, and plays a key role in the function of the PDH complex. Mutations in this gene are associated with pyruvate dehydrogenase E1-alpha deficiency and X-linked Leigh syndrome. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Mar 2010]

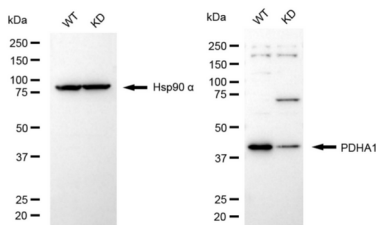
Research Area

Signal Transduction,Cancer,Metabolism

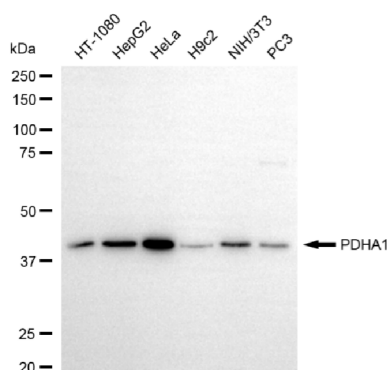
Image Data



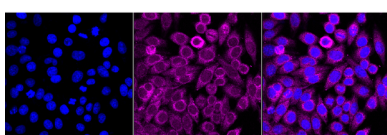
Western blotting analysis using PDHA1 antibody (KVA01330). PDHA1 expression in wild type (WT) and PDHA1 knockout (KO) HeLa cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with PDHA1 antibody (KVA01330, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



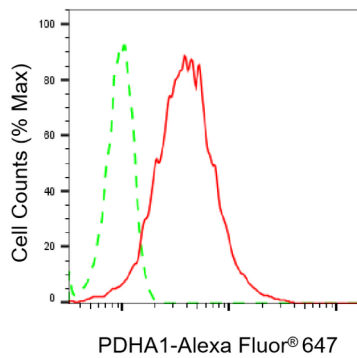
Western blotting analysis using PDHA1 antibody (KVA01330). PDHA1 expression in wild type (WT) and PDHA1 knockdown (KD) HSHC cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with PDHA1 antibody (KVA01330, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Western blotting analysis using PDHA1 antibody (KVA01330). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with PDHA1 antibody (KVA01330, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Immunocytochemical staining of HepG2 cells with PDHA1 antibody (KVA01330, 1:1,000). Nuclei were stained blue with DAPI; PDHA1 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 PDHA1 expression in HepG2 cells using PDHA1 antibody (KVA01330, 1:2,000). Green, isotype control; red, PDHA1.