

Rabbit PDHA1 Polyclonal Antibody | anti-PDHA1 antibody

PDHA1 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA166213	Rabbit	Human, Mouse, Rat	Immunofluorescence, Immunohistochemistry, Western Blot

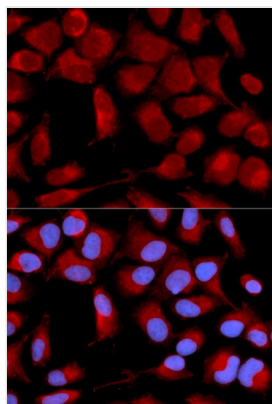
PRODUCT SYNONYMS

PDHA1; Polyclonal Antibody; PDHA1 Antibody; PDHA; PDHCE1A; PHE1A; anti-PDHA1 antibody

PRODUCT SPECIFICATIONS

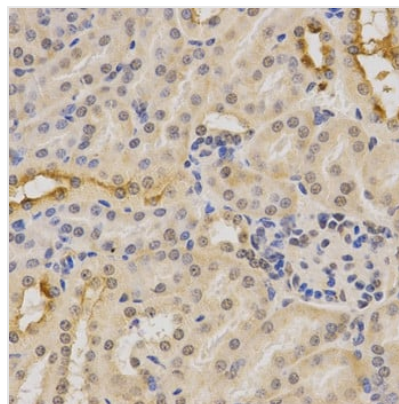
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Purity/Purification	Antigen affinity purification
Concentration	1mg/mL (varies by lot)
Sequence Length	359
Applicable Applications for anti-PDHA1 antibody	IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	Recombinant protein of human PDHA1
Buffer	PBS with 0.02% sodium azide, 50% glycerol, pH7.3
Santa Cruz Alternative	Potential replacement for Santa Cruz Biotechnology antibody catalog# sc-133898 / sc-292543
Preparation and Storage	Store at -20 degree C (regular) and -80 degree C (long term). Avoid freeze / thaw cycles.

IMAGES



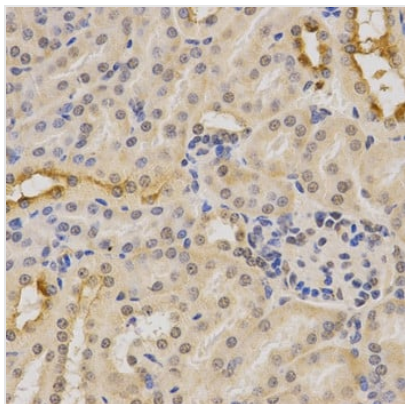
IF (Immunofluorescence)

Immunofluorescence analysis of U2OS cell using PDHA1 antibody. Blue: DAPI for nuclear staining.



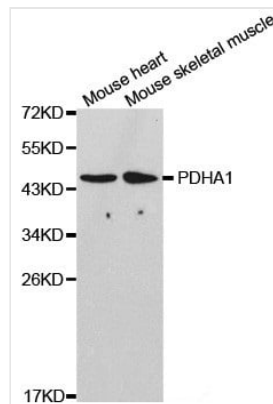
IHC (Immunohistochemistry)

Immunohistochemistry of paraffin-embedded mouse kidney using PDHA1 antibody at dilution of 1:200 (x400 lens)



IHC (Immunohistochemistry)

Immunohistochemistry of paraffin-embedded human kidney using PDHA1 antibody at dilution of 1:200 (x400 lens)



WB (Western Blot)

Western blot analysis of extracts of various cell lines, using PDHA1 antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-PDHA1 antibody

The pyruvate dehydrogenase complex catalyzes the conversion of pyruvate and CoA into acetyl-CoA and CO₂ in the presence of NAD⁺. Acetyl-CoA then goes into the citric acid cycle where it reacts with oxaloacetate to form citrate. Acetyl-CoA is also used for fatty acid and cholesterol biosynthesis. The reaction of oxidative decarboxylation of pyruvate therefore serves as a critical link between glycolysis and the citric acid cycle and lipid metabolism. In mammalian cells, the pyruvate dehydrogenase complex is located in the mitochondrial matrix (1). This complex is comprised of three enzymes: pyruvate dehydrogenase (E1), dihydrolipoamide acetyltransferase (E2) and dihydrolipoamide dehydrogenase (E3). Pyruvate dehydrogenase (E1) consists of two subunits: alpha and beta. This enzyme catalyzes the removal of CO₂ from pyruvate. Mutations in the alpha subunits of pyruvate dehydrogenase (E1) lead to congenital defects that are usually associated with lactic acidosis, neurodegeneration and early death (2).

NCBI AND UNIPROT INFORMATION

NCBI GI #	291084757
NCBI GeneID	5160
NCBI Accession #	NP_001166927.1
NCBI GenBank Nucleotide #	NM_001173456.1
Molecular Weight	47,580 Da
NCBI Official Full Name	pyruvate dehydrogenase E1 component subunit alpha, somatic form, mitochondrial isoform 4
NCBI Official Synonym Full Names	pyruvate dehydrogenase (lipoamide) alpha 1
NCBI Official Symbol	PDHA1
NCBI Official Synonym Symbols	PDHA; PDHAD; PHE1A; PDHCE1A
NCBI Protein Information	pyruvate dehydrogenase E1 component subunit alpha, somatic form, mitochondrial; PDHE1-A type I; pyruvate dehydrogenase complex, E1-alpha polypeptide 1
UniProt Protein Name	Pyruvate dehydrogenase E1 component subunit alpha, somatic form, mitochondrial
UniProt Gene Name	PDHA1
UniProt Synonym Gene Names	PHE1A
UniProt Entry Name	ODPA_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

