



PDH-E1 α Monoclonal Antibody

Catalog No	YP-Ab-03440
Isotype	IgG
Reactivity	Human;Mouse;Rat;Bovine;Dog;Pig
Applications	WB;IF
Gene Name	PDHA1 ODP A
Immunogen	Purified recombinant human PDH-E1 α (C-terminus) protein fragments expressed in E.coli.
Specificity	PDH-E1 α Monoclonal Antibody detects endogenous levels of PDH-E1 α protein.
Formulation	Purified mouse monoclonal in buffer containing 0.1M Tris-Glycine (pH 7.4, 150 mM NaCl) with 0.2% sodium azide, 50% glycerol.
Source	Monoclonal, Mouse
Purification	Affinity purification
Dilution	Western Blot: 1/1000 - 1/2000. Immunofluorescence: 1/100 - 1/500. Not yet tested in other applications.
Concentration	1 mg/ml
Purity	$\geq 90\%$
Storage Stability	-20°C/1 year
Synonyms	PDH E1 α ;PDHA1;EC:1.2.4.1;PDHA;PDHA 1;PDHA1 ODP A;Pyruvate dehydrogenase E1 component subunit alpha somatic form mitochondrial;PHE1A; Pyruvate dehydrogenase E1 component subunit alpha;somatic form; mitochondrial;PDHE1-A type I
Calculated Molecular Weight	43kD
Cell Pathway	Mitochondrion matrix.
Tissue Specificity	Ubiquitous.
Function	catalytic activity:Pyruvate + [dihydrolipoyllysine-residue acetyltransferase] lipoyllysine = [dihydrolipoyllysine-residue acetyltransferase] S-acetyldihydrolipoyllysine + CO(2).,cofactor:Thiamine pyrophosphate., disease:Defects in PDHA1 are a cause of pyruvate decarboxylase E1 component deficiency (PDHE1 deficiency) [MIM:312170]. PDHE1 deficiency is the most common enzyme defect in patients with primary lactic acidosis. It is associated with variable clinical phenotypes ranging from neonatal death to prolonged survival complicated by developmental delay, seizures, ataxia, apnea, and in some cases to an X-linked form of Leigh syndrome (LS) (Leigh encephalomyelopathy).,disease:Defects in PDHA1 are the cause of X-linked Leigh syndrome (LS) [MIM:308930]. LS is an early-onset progressive



neurodegenerative disorder with a characteristic neuropathology consisting of focal, bilateral lesions in o

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],

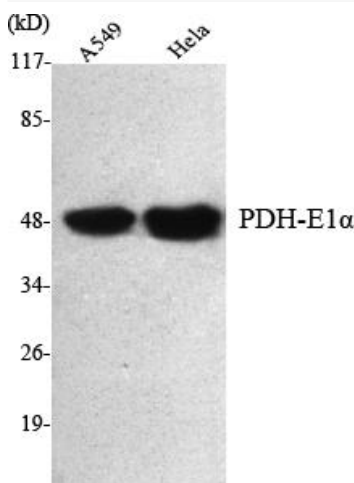
matters needing attention

Avoid repeated freezing and thawing!

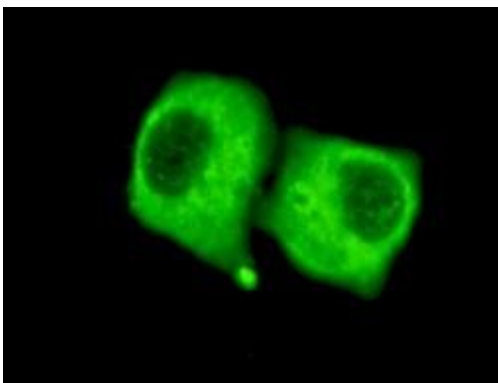
Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

Products Images



Western Blot analysis using PDH-E1α Monoclonal Antibody against A549, HeLa cell lysate.



Immunofluorescence analysis of HeLa cells using PDH-E1α Monoclonal Antibody.