



# pyruvate dehydrogenase (lipoamide) $\alpha$ 1 mouse mAb

<b>Catalog No</b>	YP-Ab-03449
<b>Isotype</b>	IgG
<b>Reactivity</b>	Human;Mouse
<b>Applications</b>	WB;ICC
<b>Gene Name</b>	pdha1
<b>Protein Name</b>	
<b>Immunogen</b>	Purified recombinant human Pyruvate Dehydrogenase protein fragments expressed in E.coli.
<b>Specificity</b>	This antibody detects endogenous levels of pyruvate dehydrogenase (lipoamide) alpha 1 and does not cross-react with related proteins.
<b>Formulation</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
<b>Source</b>	Monoclonal, Mouse
<b>Purification</b>	The antibody was affinity-purified from mouse ascites by affinity-chromatography using epitope-specific immunogen.
<b>Dilution</b>	wb 1:1000 icc 1:100
<b>Concentration</b>	1 mg/ml
<b>Purity</b>	$\geq 90\%$
<b>Storage Stability</b>	-20°C/1 year
<b>Synonyms</b>	mitochondrial;ODPA_HUMAN;PDH;PDHA;PDHA1;PDHCE1A;PDHE1 A type I;PDHE1-A type I;PHE1A; Pyruvate Dehydrogenase (lipoamide) alpha 1;Pyruvate dehydrogenase complex, E1 alpha polypeptide 1;Pyruvate Dehydrogenase E1 alpha;Pyruvate dehydrogenase E1 component subunit alpha;Pyruvate dehydrogenase E1 component subunit alpha, somatic form, mitochondrial;somatic form.
<b>Observed Band</b>	43kD
<b>Cell Pathway</b>	Mitochondrion matrix.
<b>Tissue Specificity</b>	Ubiquitous.
<b>Function</b>	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 CO<sub>2</sub>, 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],

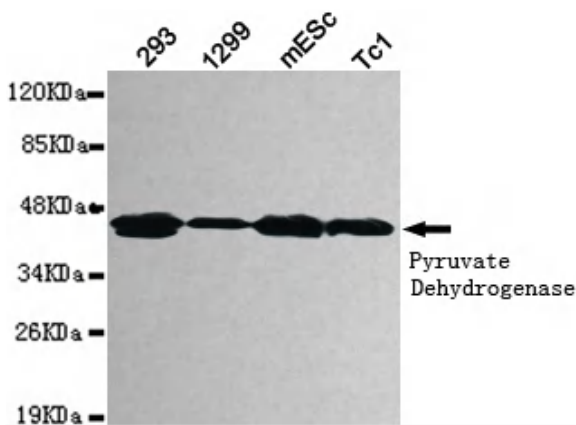
## matters needing attention

Avoid repeated freezing and thawing!

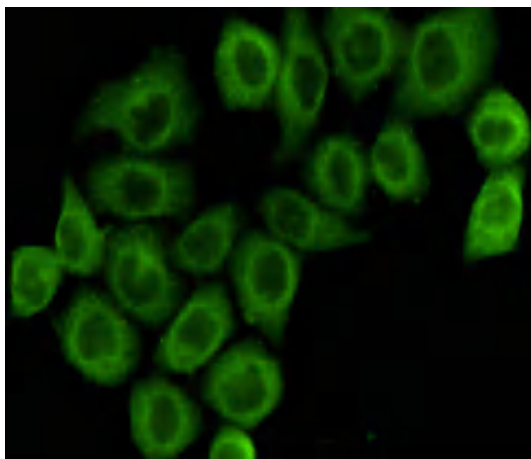
## Usage suggestions

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

## Products Images



Western blot detection of pyruvate dehydrogenase (lipoamide) alpha 1 in 293, 1299, mEsc and Tc1 cell lysates using pyruvate dehydrogenase (lipoamide) alpha 1 mouse mAb (1:1000 diluted). Predicted band size: 43KDa. Observed band size: 43KDa.



Immunocytochemistry staining of HeLa cells fixed with 4% Paraformaldehyde and using anti-pyruvate dehydrogenase (lipoamide) alpha 1 mouse mAb (dilution 1:100).