Anti-Pyruvate Dehydrogenase E2 Mouse mAb

Purified Recombinant Mouse Monoclonal Antibody

Catalog # M010550

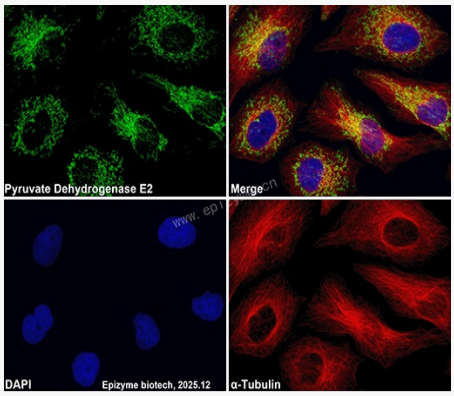
Product Information

Application	WB, IF (Cell)/ICC, ELISA
Reactivity	Human, Mouse, Rat
Dilution	WB 1:1,000~1:2,000; IF 1:100~1:200
Host	Mouse
Clonality	Monoclonal
Clone No.	77L67L58
Isotype	IgG
Label	Unconjugated
Immunogen	Recombinant protein of human Pyruvate Dehydrogenase E2
Format	Affinity purified monoclonal antibody supplied in PBS with 0.02% sodium azide and 50% glycerol, pH 7.3.
Storage	Shipped on wet ice. Store at -20°C. Stable for 24 months from date of receipt. Aliquoting is unnecessary for -20°C storage.
Precautions	Anti-Pyruvate Dehydrogenase E2 Mouse mAb [77L67L58] is for research use only and not for use in diagnostic or therapeutic procedures.

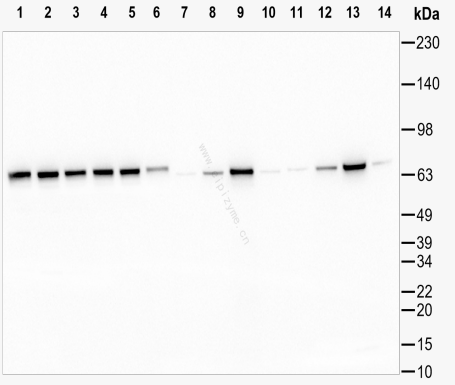
Protein Information

Synonyms	PDC-E2; PDCE2; DLTA; E2; PBC; 6332404G05Rik; noa; nrb; wu:fc14f10; wu:fc21f08; ODP2_BOVIN; DLAT; Dihydrolipoamide acetyltransferase component of pyruvate dehydrogenase complex; Pyruvate dehydrogenase complex component E2 (PDC-E2 | PDCE2); 2.3.1.12; ODP2_HUMAN; 70 kDa mitochondrial autoantigen of primary biliary cirrhosis (PBC); M2 antigen complex 70 kDa subunit; ODP2_MOUSE; ODP2_RAT.
Calculated MW	Calculated MW: 69 kDa; Observed MW: 69 kDa
Uniprot ID	P10515
Gene ID	1737
Background	This gene encodes component E2 of the multi-enzyme pyruvate dehydrogenase complex (PDC). PDC resides in the inner mitochondrial membrane and catalyzes the conversion of pyruvate to acetyl coenzyme A. The protein product of this gene, dihydrolipoamide acetyltransferase, accepts acetyl groups formed by the oxidative decarboxylation of pyruvate and transfers them to coenzyme A. Dihydrolipoamide acetyltransferase is the antigen for antimitochondrial antibodies. These autoantibodies are present in nearly 95% of patients with the autoimmune liver disease primary biliary cirrhosis (PBC). In PBC, activated T lymphocytes attack and destroy epithelial cells in the bile duct where this protein is abnormally distributed and overexpressed. PBC enventually leads to cirrhosis and liver failure. Mutations in this gene are also a cause of pyruvate dehydrogenase E2 deficiency which causes primary lactic acidosis in infancy and early childhood.[provided by RefSeq, Oct 2009]
Cellular Location	Mitochondrion matrix

Validation Images



Immunofluorescence - Anti-Pyruvate Dehydrogenase E2 Mouse mAb [77L67L58]
Sample: HeLa cells
The cells were fixed with 4% paraformaldehyde (10 min), permeabilized with 0.5% Triton X-100 for 10 minutes and then blocked with 5% BSA in 0.1% PBS-Tween for 0.5 hours.
Primary antibody: M010550 at 1:100 dilution and and α-tubulin Rabbit Monoclonal Antibody (Cat. No. LF213) at 1:100 dilution
Secondary antibody: Goat anti-Mouse (488) at 1:1,000 dilution (shown in green) and Goat anti-Rabbit (555) at 1:1,000 dilution (shown in red)
Nuclei were stained with DAPI (shown in blue).



Western Blot - Anti-Pyruvate Dehydrogenase E2 Mouse mAb [77L67L58]
All lanes: M010550 at 1:1,000 dilution
Lane 1: HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysates
Lane 2: HepG2 (Human hepatocarcinoma epithelial cell) whole cell lysates
Lane 3: HCT116 (Human colorectal carcinoma epithelial cell) whole cell lysates
Lane 4: MCF-7 (human breast adenocarcinoma epithelial cell) whole cell lysates
Lane 5: 293T (Human embryonic kidney cell) whole cell lysates
Lane 6: U87 (Human malignant glioblastoma epithelial cells) whole cell lysates
Lane 7: C2C12 (Mouse myoblasts epithelial cell) whole cell lysates
Lane 8: Mouse brain whole tissue lysates
Lane 9: Mouse heart whole tissue lysates
Lane 10: Mouse liver whole tissue lysates
Lane 11: PC-12 (Rat adrenal pheochromocytoma epithelial cell) whole cell lysates
Lane 12: Rat brain whole tissue lysates
Lane 13: Rat heart whole tissue lysates
Lane 14: Rat liver whole tissue lysates
Lysates/proteins at 10 µg per lane.
Secondary antibody: Goat Anti-Mouse IgG(H+L), HRP Conjugated (Cat. No. LF101) at 1:5,000 dilution
Predicted band size: 69 kDa
Observed band size: 69 kDa
Developed using the ECL technique (Cat. No. SQ201).