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Anti-PDHA1 Antibody

Catalog # AP95996

Product Information

Application	WB, IHC, FC, IP, IF/IC
Primary Accession	P08559
Reactivity	Human, Mouse, Rat
Host	Mouse
Clonality	Monoclonal
Calculated MW	43296

Additional Information

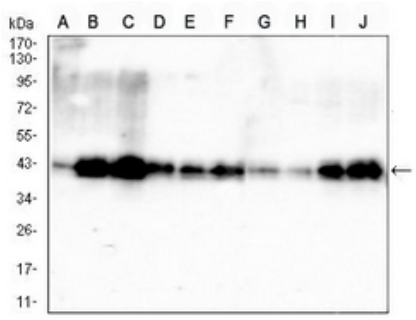
Gene ID	5160
Other Names	PHE1A; Pyruvate dehydrogenase E1 component subunit alpha, somatIC, form, mitochondrial; PDHE1-A type I
Target/Specificity	Recombinant fusion protein of human PDHA1 expressed in E. Coli
Dilution	WB~~WB (1/500 - 1/1000) IHC~~1:100~500 FC~~FC (1/100 - 1/200) IP~~N/A IF/IC~~N/A
Format	Mouse IgG1. Liquid in PBS, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

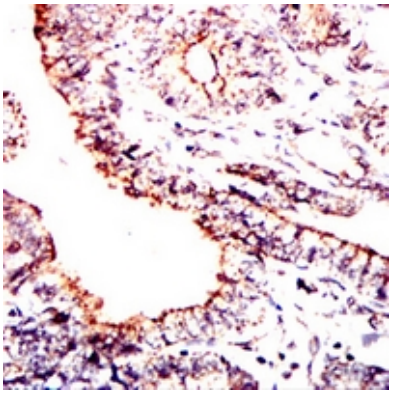
Name	PDHA1 (HGNC:8806)
Synonyms	PHE1A
Function	Together with PDHB forms the heterotetrameric E1 subunit of the pyruvate dehydrogenase (PDH) complex (PubMed:17474719, PubMed:19081061). The PDH complex catalyzes the overall conversion of pyruvate to acetyl-CoA and CO(2), and thereby links cytoplasmic glycolysis and the mitochondrial tricarboxylic acid (TCA) cycle (PubMed:19081061, PubMed:7782287). It contains multiple copies of three enzymatic components: pyruvate dehydrogenase (E1), dihydrolipoamide acetyltransferase (E2) and dihydrolipoamide dehydrogenase (E3) (Probable). The E1 subunit catalyzes both the thiamine pyrophosphate (TPP)-dependent decarboxylation of pyruvate and the reductive acetylation of a lipoyl group covalently linked to the lipoyl-bearing domains of E2 (PubMed:17474719, PubMed:19081061, PubMed:7782287).
Cellular Location	Mitochondrion matrix {ECO:0000250|UniProtKB:P26284}

Tissue Location Ubiquitous.

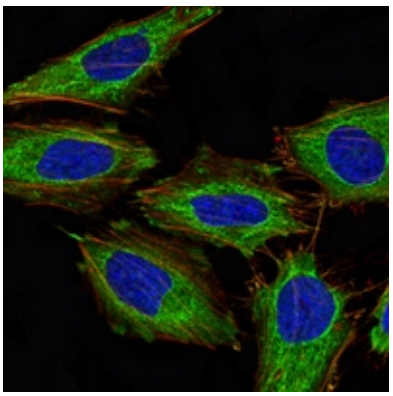
Images



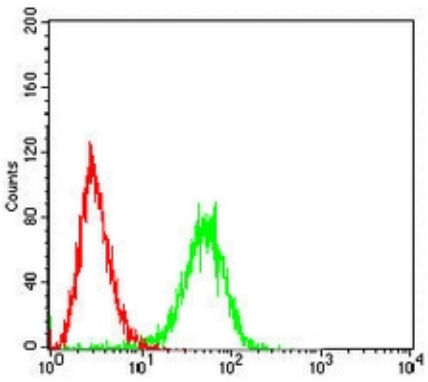
Western blot analysis of PDHA1 expression in HepG2 (A), HEK293 (B), HL60 (C), SKOV3 (D), PC3 (E), PANC1 (F), NRK (G), C2C12 (H), C6 (I), PC12 (J) whole cell lysates. (Predicted band size: 43 kD; Observed band size: 43 kD)



Immunohistochemical analysis of PDHA1 staining in human lung cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of PDHA1 staining in Hela cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with an AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).



Flow cytometric analysis of HeLa cells using Anti-PDHA1 Antibody (green) and negative control (red).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.