10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Pyruvate Dehydrogenase E1 alpha Rabbit mAb

Catalog # AP76875

Product Information

Application	WB, IHC-P, FC, IP
Primary Accession	P08559
Reactivity	Rat, Human, Mouse
Host	Rabbit
Clonality	Monoclonal Antibody
Isotype	IgG
Conjugate	Unconjugated
Purification	Affinity Purified
Calculated MW	43296

Additional Information

Gene ID	5160
Other Names	PDHA1
Dilution	WB~~1:1000 IHC-P~~N/A FC~~1:10~50 IP~~N/A
Format	Liquid in 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and 0.05% BSA.
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

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.

Background

The PDH complex is composed of multiple copies of three enzymatic components: pyruvate dehydrogenase (E1), dihydrolipoamide acetyltransferase (E2) and lipoamide dehydrogenase (E3). Catalyzes the removal of CO2 from pyruvate. Mutations in the α subunits of pyruvate dehydrogenase (E1) lead to congenital defects that are usually associated with lactic acidosis, neurodegeneration and early death.

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