Mouse Monoclonal Antibody Pyruvate Dehydrogenase E1 α conjugated to Sepharose Beads

CatalogNo: ANT8190-M

Size 200ul

Storage Store at 4 °C for frequent use

Description

This Antagene antibody is immobilized by the covalent reaction of hydrazinonicotinamide-modified antibody with formylbenzamide-modified beads. It is useful for immunoprecipitation.

Pyruvate Dehydrogenase E1 α (ANT0022R) Rabbit mAb

Formulation: Each vial contains 1mg/ml Magnetic Bead in PBS, pH 7.2, 0.05mg ANaN3.

Host Species	Reactivity	Applications
• Rabbit	• Human,Mouse,Rat,	• WB,IHC,IF,IP,ELISA

MW	Isotype
• 43kD (Calculated) 43kD (Observed)	• IgG,Kappa

Recommended Dilution Ratios

IP

Basic Information

Clonality	Monoclonal
Clone Number	ANT0022R

Immunogen Information

Squence	Pyruvate dehydrogenase E1 component subunit alpha somatic form mitochondrial
Specificity	Endogenous

Target Information

Gene name >>Glycolysis / Gluconeogenesis;>>Citrate cycle (TCA cycle);>>Pyruvate metabolism;>>Metabolic pathways;>>Carbon metabolism;>>HIF-1 signaling pathway;>>Glucagon signaling pathway;>>Central carbon metabolism in cancer;>>Diabetic cardiomyopathy

Protein Name PDHA1 ODPA

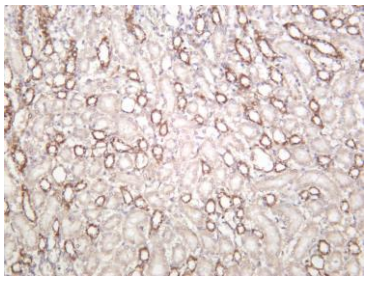
Organism	Gene ID	UniProt ID
Human	5160;	P08559;
Mouse	18597;	P35486;
Rat		P26284;

Cellular Localization Mitochondrion matrix

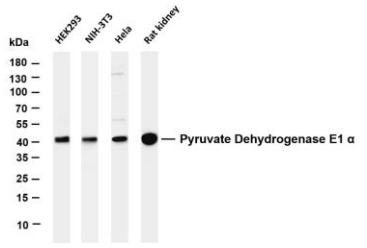
Tissue specificity Ubiquitous.

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 one or more areas of the central nervous system, including the brainstem, thalamus, basal ganglia, cerebellum, and spinal cord. The lesions are areas of demyelination, gliosis, necrosis, spongiosis, or capillary proliferation. Clinical symptoms depend on which areas of the central nervous system are involved. The most common underlying cause is a defect in oxidative phosphorylation. LS may be a feature of a deficiency of any of the mitochondrial respiratory chain complexes.,enzyme regulation:E1 activity is regulated by phosphorylation (inactivation) and dephosphorylation (activation) of the alpha subunit.,Function:The pyruvate dehydrogenase complex catalyzes the overall conversion of pyruvate to acetyl-CoA and CO(2). It contains multiple copies of three enzymatic components: pyruvate dehydrogenase (E1), dihydrolipoamide acetyltransferase (E2) and lipoamide dehydrogenase (E3).,subunit:Tetramer of 2 alpha and 2 beta subunits.,tissue specificity:Ubiquitous.,

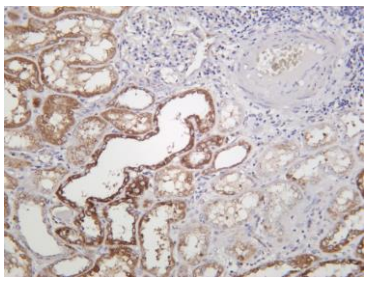
Validation Data



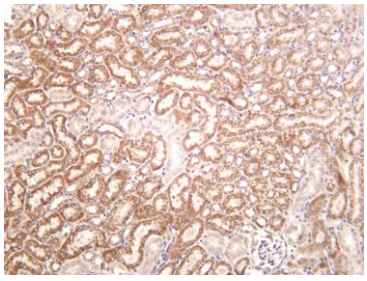
Rat kidney was stained with anti-Pyruvate Dehydrogenase E1 α (ANT0022R) rabbit antibody



Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-Pyruvate Dehydrogenase E1 α (ANT0022R) antibody. The HRP-conjugated Goat anti-Rabbit IgG(H + L) antibody was used to detect the antibody. Lane 1: HEK293 Lane 2: NIH-3T3 Lane 3: Hela Lane 4:
Rat kidney Predicted band size: 43kDa Observed band size: 43kDa



Human kidney was stained with anti-Pyruvate Dehydrogenase E1 α (ANT0022R) rabbit antibody



Mouse kidney was stained with anti-Pyruvate Dehydrogenase E1 α (ANT0022R) rabbit antibody