Pyruvate Dehydrogenase (C54G1) Rabbit mAb



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Applications: W, IHC-P	Reactivity: H M R Mk	Sensitivity: Endogenous	MW (kDa): 43	Source/Isotype: Rabbit IgG	UniProt ID: #P08559	Entrez-Gene Id: 5160
Product Usage Information		Application Western Blotting Immunohistochemistry (Paraffin)		Dilution 1:1000 1:50 - 1:200		
Storage		Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 μ g/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.				
		For a carrier free (BSA and azide free) version of this product see product #72322.				
Specificity/Sensitivity		Pyruvate Dehydrogenase (C54G1) Rabbit mAb detects endogenous levels of total pyruvate dehydrogenase $\alpha 1$ subunit.				
Source / Purification		Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Asp112 of human pyruvate dehydrogenase protein.				
Background		The pyruvate dehydrogenase complex catalyzes the conversion of pyruvate and CoA into acetyl-CoA and CO_2 in the presence of NAD ⁺ . Acetyl-CoA then goes into the citric acid cycle where it reacts with oxaloacetate to form citrate. The reaction of oxidative decarboxylation of pyruvate serves as a critical link between glycolysis and the citric acid cycle. In mammalian cells, the pyruvate dehydrogenase complex is located in the mitochondrial matrix (1). This complex is composed of three enzymes: pyruvate dehydrogenase (E1), dihydrolipoamide acetyltransferase (E2), and dihydrolipoamide dehydrogenase (E3). Pyruvate dehydrogenase (E1) consists of two subunits: α and β . This enzyme catalyzes the removal of CO_2 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 (2).				
Background References		1. Strumiło, S. (2005) <i>Acta Biochim Pol</i> 52, 759-64. 2. Stacpoole, P.W. et al. (2003) <i>Curr Gene Ther</i> 3, 239-45.				
Species Reacti	vity	Species reactivity is d	etermined by testin	g in at least one approve	ed application (e.g.,	western blot).
Western Blot Buffer		IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.				
Applications Key		W: Western Blotting IHC-P: Immunohistochemistry (Paraffin)				
Cross-Reactivity Key		H: Human M: Mouse R: Rat Mk: Monkey				
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