PDHA1 (phospho S293) polyclonal antibody

Catalog # PAB12079 Size 50 uL

Applications

Western Blot

Western blot analysis of PDHA1 in an in vitro autophosphorylation of PDH complex in response to different stimulants with PDHA1 (phospho S293) polyclonal antibody (Cat # PAB12079).
Such stimulants are : (-) none, H_2O_2-hydrogen peroxide, AR-anhydroretinol, Rol-retinol, RA-retinoic acid, PMA, Lipid-PKC lipid activator.
Photo courtesy of Dr. Beatrice Hoyos, Memorial Sloan-Kettering Cancer Center.

Specification

Product Description	Rabbit polyclonal antibody raised against synthetic phosphopeptide of PDHA1.
Immunogen	Synthetic phosphopeptide corresponding to residues surrounding S293 human PDHA1.
Host	Rabbit
Reactivity	Human
Specificity	This antibody is specific to the phosphorylated Serine 293 form of the PDHE1 alpha protein.
Form	Liquid
Recommend Usage	Immunocytochemistry (1:50-1:200) Immunofluorescence (1:50-1:200) Western Blot (1:1000-1:5000) The optimal working dilution should be determined by the end user.
Storage Buffer	In Tris-citrate/phosphate buffer, pH 7.0-8.0 (0.09% sodium azide)
Storage Instruction	Store at 4°C. For long term storage store at -20°C. Aliquot to avoid repeated freezing and thawing.

Note	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which shoul d be handled by trained staff only.

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- Immunocytochemistry

- Immunofluorescence

Gene Info — PDHA1

Entrez GeneID	5160
Protein Accession#	P08559
Gene Name	PDHA1
Gene Alias	PDHA, PDHCE1A, PHE1A
Gene Description	pyruvate dehydrogenase (lipoamide) alpha 1
Omim ID	300502 308930 312170
Gene Ontology	Hyperlink
Gene Summary	The pyruvate dehydrogenase complex is a nuclear-encoded mitochondrial matrix multienzyme co mplex that provides the primary link between glycolysis and the tricarboxylic acid (TCA) cycle by c atalyzing the irreversible conversion of pyruvate into acetyl-CoA. The PDH complex is composed of multiple copies of 3 enzymes: E1 (PDHA1); dihydrolipoyl transacetylase (DLAT; MIM 608770) (E2; EC 2.3.1.12); and dihydrolipoyl dehydrogenase (DLD; MIM 238331) (E3; EC 1.8.1.4). The E1 enzyme is a heterotetramer of 2 alpha and 2 beta subunits. The E1-alpha subunit contains the E1 active site and plays a key role in the function of the PDH complex (Brown et al., 1994 [PubMed 7 853374]).[supplied by OMIM
Other Designations	OTTHUMP00000023015|pyruvate dehydrogenase E1 alpha subunit

Publication Reference

- Pyruvate dehydrogenase complex activity controls metabolic and malignant phenotype in cancer cells.

  McFate T, Mohyeldin A, Lu H, Thakar J, Henriques J, Halim ND, Wu H, Schell MJ, Tsang TM, Teahan O, Zhou S, Califano JA, Jeoung NH, Harris RA, Verma A.

  The Journal of Biological Chemistry 2008 Jun; 283(33):22700.

Pathway

- Biosynthesis of alkaloids derived from histidine and purine
- Biosynthesis of alkaloids derived from ornithine
- Biosynthesis of alkaloids derived from shikimate pathway
- Biosynthesis of alkaloids derived from terpenoid and polyketide
- Biosynthesis of phenylpropanoids
- Biosynthesis of plant hormones
- Biosynthesis of terpenoids and steroids
- Butanoate metabolism
- Citrate cycle (TCA cycle)
- Glycolysis / Gluconeogenesis
- Metabolic pathways
- Pyruvate metabolism
- Valine