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# PDHA2 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP10756c

## Product Information

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|---|---|
| **Application** | WB, IHC-P, E |
| **Primary Accession** | P29803 |
| **Other Accession** | NP_005381.1 |
| **Reactivity** | Human |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Isotype** | Rabbit IgG |
| **Clone Names** | RB24679 |
| **Calculated MW** | 42933 |
| **Antigen Region** | 287-314 |

## Additional Information

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| **Gene ID** | 5161 |
| **Other Names** | Pyruvate dehydrogenase E1 component subunit alpha, testis-specific form, mitochondrial, PDHE1-A type II, PDHA2, PDHAL |
| **Target/Specificity** | This PDHA2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 287-314 amino acids from the Central region of human PDHA2. |
| **Dilution** | WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration. |
| **Format** | Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification. |
| **Storage** | Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles. |
| **Precautions** | PDHA2 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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| **Name** | PDHA2 ( HGNC:8807) |
| **Synonyms** | PDHAL |
| **Function** | Together with PDHB forms the heterotetrameric E1 subunit of the pyruvate |

dehydrogenase (PDH) complex in testis (PubMed:14638692). 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 (Probable). 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:16436377).

**Cellular Location** Mitochondrion matrix {ECO:0000250|UniProtKB:P26284}

**Tissue Location** Testis. Expressed in postmeiotic spermatogenic cells.

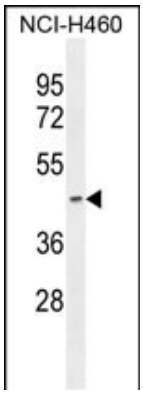
## Background

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).

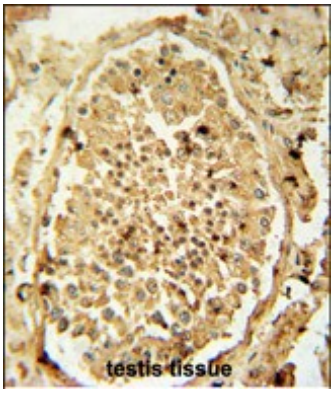
## References


Pinheiro, A., et al. Mol. Genet. Metab. 99(4):425-430(2010)
Olsen, J.V., et al. Cell 127(3):635-648(2006)
Olsen, J.V., et al. Cell 127(3):635-648(2006)
Caruso, M., et al. J. Biol. Chem. 276(48):45088-45097(2001)
Jacobia, S.J., et al. Arch. Biochem. Biophys. 395(1):121-128(2001)


## Images




PDHA2 Antibody (Center) (Cat. #AP10756c) western blot analysis in NCI-H460 cell line lysates (35ug/lane).This demonstrates the PDHA2 antibody detected the PDHA2 protein (arrow).




PDHA2 antibody (Center) (Cat. #AP10756c) immunohistochemistry analysis in formalin fixed and paraffin embedded human testis tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the PDHA2 antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.