

PDK2 Antibody

Rabbit mAb Catalog # AP91623

Specification

PDK2 Antibody - Product Information

| Application Primary Accession Reactivity Clonality Other Names PDHK2; PDK2; | WB, IHC, FC, ICC, IP <u>015119</u> Rat Monoclonal |
|---|--|
| lsotype | Rabbit IgG |
| Host | Rabbit |
| Calculated MW | 46154 Da |

PDK2 Antibody - Additional Information

| Dilution | WB~~1:1000 IHC~~1:100~500 FC~~1:10~50 ICC~~N/A IP~~N/A |
|------------------------------|---|
| Purification | Affinity-chromatography |
| Immunogen | A synthesized peptide derived from human PDK2 |
| Description | Inhibits the mitochondrial pyruvate dehydrogenase complex by phosphorylation of the E1 alpha subunit, thus contributing to the regulation of glucose metabolism. |
| Storage Condition and Buffer | Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle. |

PDK2 Antibody - Protein Information

Name PDK2

Synonyms PDHK2

Function

Kinase that plays a key role in the regulation of glucose and fatty acid metabolism and homeostasis via phosphorylation of the pyruvate dehydrogenase subunits PDHA1 and PDHA2. This inhibits pyruvate dehydrogenase activity, and thereby regulates metabolite flux through the tricarboxylic acid cycle, down-regulates aerobic respiration and inhibits the formation of



acetyl-coenzyme A from pyruvate. Inhibition of pyruvate dehydrogenase decreases glucose utilization and increases fat metabolism. Mediates cellular responses to insulin. Plays an important role in maintaining normal blood glucose levels and in metabolic adaptation to nutrient availability. Via its regulation of pyruvate dehydrogenase activity, plays an important role in maintaining normal blood pH and in preventing the accumulation of ketone bodies under starvation. Plays a role in the regulation of cell proliferation and in resistance to apoptosis under oxidative stress. Plays a role in p53/TP53-mediated apoptosis.

Cellular Location

Mitochondrion matrix.

Tissue Location

Expressed in many tissues, with the highest level in heart and skeletal muscle, intermediate levels in brain, kidney, pancreas and liver, and low levels in placenta and lung

PDK2 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

PDK2 Antibody - Images



Western blot analysis of PDK2 expression in (1) SH-SY5Y cell lysate; (2) Mouse heart lysate.