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PDK2 Antibody (C-term) Blocking Peptide
Synthetic peptide
Catalog # BP7039b

Specification

PDK2 Antibody (C-term) Blocking Peptide - Product Information

Primary Accession Q15119

PDK2 Antibody (C-term) Blocking Peptide - Additional Information

Gene ID 5164

Other Names
[Pyruvate dehydrogenase (acetyl-transferring)] kinase isozyme 2, mitochondrial, Pyruvate dehydrogenase kinase isoform 2, PDH kinase 2, PDKII, PDK2, PDHK2

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP7039b was selected from the C-term region of human PDK2. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

PDK2 Antibody (C-term) Blocking Peptide - 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 (C-term) Blocking Peptide - Protocols

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

- Blocking Peptides

PDK2 Antibody (C-term) Blocking Peptide - Images

PDK2 Antibody (C-term) Blocking Peptide - Background

PDK2 inhibits the mitochondrial pyruvate dehydrogenase complex by phosphorylation of the E1 alpha subunit, thus contributing to the regulation of glucose metabolism.

PDK2 Antibody (C-term) Blocking Peptide - References

Hiromasa, Y., et al., J. Biol. Chem. 278(36):33681-33693 (2003).Baker, J.C., et al., J. Biol. Chem. 275(21):15773-15781 (2000).Gudi, R., et al., J. Biol. Chem. 270(48):28989-28994 (1995).