

PDK2 Antibody (clone 5F8) Mouse Monoclonal Antibody Catalog # ALS14056

Specification

PDK2 Antibody (clone 5F8) - Product Information

Application	
Primary Accession	
Reactivity	
Host	
Clonality	
Calculated MW	

WB, IHC <u>Q15119</u> Human Mouse Monoclonal 46kDa KDa

PDK2 Antibody (clone 5F8) - Additional Information

Gene ID 5164

Other Names [Pyruvate dehydrogenase (acetyl-transferring)] kinase isozyme 2, mitochondrial, 2.7.11.2, Pyruvate dehydrogenase kinase isoform 2, PDH kinase 2, PDKII, PDK2, PDHK2

Target/Specificity Human PDK2

Reconstitution & Storage Short term 4°C, long term aliquot and store at -20°C, avoid freeze thaw cycles.

Precautions PDK2 Antibody (clone 5F8) is for research use only and not for use in diagnostic or therapeutic procedures.

PDK2 Antibody (clone 5F8) - 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

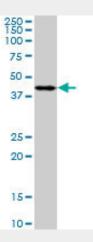
Expressed in many tissues, with the highest level in heart and skeletal muscle, intermediate levels in brain, kidney, pancreas and liver, and low levels in placenta and lung

PDK2 Antibody (clone 5F8) - Protocols

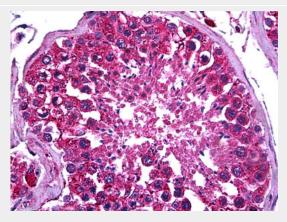
Provided below are standard protocols that you may find useful for product applications.

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

PDK2 Antibody (clone 5F8) - Images



PDK2 monoclonal antibody clone 5F8. Western blot of PDK2 expression in 293.



Anti-PDK2 antibody IHC of human testis.



PDK2 Antibody (clone 5F8) - Background

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.

PDK2 Antibody (clone 5F8) - References

Gudi R.,et al.J. Biol. Chem. 270:28989-28994(1995). Ota T.,et al.Nat. Genet. 36:40-45(2004). Zody M.C.,et al.Nature 440:1045-1049(2006). Mural R.J.,et al.Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases. Majer M.,et al.Mol. Genet. Metab. 65:181-186(1998).