

Product datasheet for TP506475

Pdk4 (NM_013743) Mouse Recombinant Protein

Product data:

Product Type: Recombinant Proteins Description: Purified recombinant protein of Mouse pyruvate dehydrogenase kinase, isoenzyme 4 (Pdk4), with C-terminal MYC/DDK tag, expressed in HEK293T cells, 20ug Species: Mouse **Expression Host:** HEK293T **Expression cDNA Clone** A DNA sequence from Mouse cDNA ORF Clone, MR206475, encoding Mouse full-length Pdk4. or AA Sequence: C-MYC/DDK Tag: Predicted MW: 47 kDa **Concentration:** >0.05 µg/µL as determined by microplate BCA method **Purity:** > 80% as determined by SDS-PAGE and Coomassie blue staining **Buffer:** 25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol Note: For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process. Storage: Store at -80°C after receiving vials. Stable for 12 months from the date of receipt of the product under proper storage and Stability: handling conditions. Avoid repeated freeze-thaw cycles. **RefSeq:** NP 038771 Locus ID: 27273 **UniProt ID:** 070571 **RefSeq Size:** 3453 Cytogenetics: 6 2.06 cM **RefSeq ORF:** 1236 Synonyms: AV005916



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Summary:

Kinase that plays a key role in 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 in response to prolonged fasting and starvation. Plays an important role in maintaining normal blood glucose levels under starvation, and is involved in the insulin signaling cascade. 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. In the fed state, mediates cellular responses to glucose levels and to a high-fat diet. Regulates both fatty acid oxidation and de novo fatty acid biosynthesis. Plays a role in the generation of reactive oxygen species. Protects detached epithelial cells against anoikis. Plays a role in cell proliferation via its role in regulating carbohydrate and fatty acid metabolism.[UniProtKB/Swiss-Prot Function]

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