

PDK3 Protein, Mouse (His)

Cat. No.:	HY-P71614
Synonyms:	Pdk3; Pyruvate dehydrogenase kinase isoform 3
Species:	Mouse
Source:	E. coli
Accession:	Q922H2 (1311-362S)
Gene ID:	236900
Molecular Weight:	Approximately 30.3 kDa

PROPERTIES

AA Sequence	<pre> I E Y K E K F G F D P F I S S N I Q Y F L D R F Y T N R I S F R M L I N Q H T L L F G G D T N P A H P K H I G S I D P T C N V A D V V K D A Y E T A K M L C E Q Y Y L V A P E L E V E E F N A K A P N K P I Q V V Y V P S H L F H M L F E L F K N S M R A T V E L H E D K K E G Y P A V K T L V T L G K E D L S I K I S D L G G G V P L R K I D R L F N Y M Y S T A P R P S L E P T R A A P L A G F G Y G L P I S R L Y A R Y F Q G D L K L Y S M E G V G T D A V I Y L K A L S </pre>
Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
Appearance	Lyophilized powder.
Formulation	Lyophilized after extensive dialysis against solution in Tris-based buffer, 50% glycerol.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH ₂ O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	<p>PDK3, a pivotal player in metabolic regulation, exerts its influence by inhibiting pyruvate dehydrogenase activity through the phosphorylation of the E1 subunit PDHA1, thereby finely tuning glucose metabolism and aerobic respiration. Its capacity to phosphorylate PDHA2 adds another layer of control to these critical cellular processes. Under conditions of prolonged fasting or in response to a high-fat diet, PDK3 orchestrates a metabolic shift, reducing glucose utilization and enhancing fat metabolism. Beyond its role in nutrient adaptation, PDK3 emerges as a key contributor to glucose</p>
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homeostasis, playing a crucial part in maintaining normal blood glucose levels. Additionally, its involvement in the generation of reactive oxygen species adds a layer of complexity to its multifaceted functions.

Caution: Product has not been fully validated for medical applications. For research use only.

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