Recombinant PDK3 protein (His tag)

Catalog Number	538081
Synonyms	acetyl-transferring; Pyruvate dehydrogenase kinase isoform 3
Species	Human
Expression System	E. coli
Accession	Q15120
Molecular Weight	Predictes a molecular mass of 48.60 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 49 kDa band.

Product Information

Sequence Region	1-406
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>87%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 1-406 aa (Q15120) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Human PDK3 (1-406) is a high-purity protein fragment encompassing the full Histidine kinase domain (residues 131-362). This product is ideal for investigating pyruvate dehydrogenase kinase activity, glucose metabolism regulation, and mitochondrial energy homeostasis in research applications. PDK3 (Pyruvate dehydrogenase kinase isoform 3) is a mitochondrial matrix enzyme that phosphorylates and inhibits the pyruvate dehydrogenase complex, serving as a critical regulator of glucose metabolism and aerobic respiration. By suppressing glucose utilization while promoting fat metabolism during fasting or high-fat diet adaptation, PDK3 helps maintain blood glucose homeostasis and contributes to reactive oxygen species generation. Its activity makes it a key target for metabolic disease and cancer research.