

Datasheet for ABIN7194071 **PDPK1 Protein (His tag)**



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Overview

Quantity:	50 µg
Target:	PDPK1
Origin:	Human
Source:	Baculovirus infected Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This PDPK1 protein is labelled with His tag.

Product Details

Purpose:	Recombinant Human PDK-1 Protein (His Tag)
Sequence:	Ser 29-Ala 436
Characteristics:	A DNA sequence encoding the mature form of human PDK1 (NP_002601.1) (Ser 29-Ala 436) was expressed, with a polyhistidine tag at the N-terminus.
Purity:	> 90 % as determined by reducing SDS-PAGE.
Endotoxin Level:	< 1.0 EU per µg as determined by the LAL method.

Target Details

Target:	PDPK1
Alternative Name:	PDK-1 (PDPK1 Products)
Background:	Background: Pyruvate dehydrogenase kinase, isozyme 1, also known as [Pyruvate dehydrogenase [lipoamide]] kinase isozyme 1, mitochondrial and PDK1, is a member of the PDK / BCKDK protein kinase family. PDK-1 is expressed predominantly in the heart. It contains

Target Details

one histidine kinase domain. Pyruvate dehydrogenase kinase (PDK) isoforms are molecular switches that downregulate the pyruvate dehydrogenase complex (PDC) by reversible phosphorylation in mitochondria. An inhibitory effect of lipoic acid on PDKs would result in less phosphorylation of E1 and hence increased PDC activity. At least two isoenzymic forms of pyruvate dehydrogenase kinase (PDK-1 and PDK-2) may be involved in the regulation of enzymatic activity of mammalian pyruvate dehydrogenase complex by phosphorylation. PDK-3 appears to have the highest specific activity among the three isoenzymes. PDK-1 inhibits the mitochondrial pyruvate dehydrogenase complex by phosphorylation of the E1 alpha subunit, thus contributing to the regulation of glucose metabolism.

Synonym: PDK1

Molecular Weight:	48.6 kDa
NCBI Accession:	NP_002601
Pathways:	PI3K-Akt Signaling , TCR Signaling , Fc-epsilon Receptor Signaling Pathway , EGFR Signaling Pathway , Neurotrophin Signaling Pathway , Regulation of Leukocyte Mediated Immunity , Positive Regulation of Immune Effector Process , Cell-Cell Junction Organization , Regulation of Cell Size , Skeletal Muscle Fiber Development , CXCR4-mediated Signaling Events , Signaling Events mediated by VEGFR1 and VEGFR2 , VEGFR1 Specific Signals

Application Details

Restrictions:	For Research Use only
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Handling

Format:	Lyophilized
Reconstitution:	Please refer to the printed manual for detailed information.
Buffer:	Lyophilized from sterile 20 mM Tris, 500 mM NaCl, pH 8.5, 10 % glycerol
Storage:	4 °C,-20 °C,-80 °C
Storage Comment:	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.