Active Recombinant Human PDPK1, His-tagged

Cat. No. PDPK1-387H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant full-length human PDK1 was expressed by baculovirus in Sf9 insect cells using a N-terminal His tag.
Species	Human
Source	Sf9 Cells
Description	PDK1 (3-phosphoinositide-dependent protein kinase) is activated by the presence of PtdIns(3,4,5)P3 or PtdIns(3,4)P2 (1). PDK1 then activates protein kinase B (PKB) which, in turn, inactivates glycogen synthase kinase-3 (GSK3). The phosphorylation of other proteins by PKB and GSK3 is likely to mediate many of the intracellular actions of insulin. Thus, PDK1 plays a key role in mediating many of the actions of the second messenger(s) PtdIns(3,4, 5)P3 and/or PtdIns(3,4)P2. The human PDK1 is a 556-residue monomeric enzyme comprising of a catalytic domain that is most similar to the PKA, PKB and PKC subfamily of protein kinases.
Form	Recombinant protein stored in 50mM sodium phosphate, pH 7.0, 300mM NaCl, 150mM imidazole, 0.1mM PMSF, 0.2mM DTT, 25% glycerol.
Bio-activity	The specific activity of PDK1 was determined to be 118 nmol/min/mg.
Molecular Mass	~67 kDa
Purity	> 90%

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Applications	Kinase Assay; Western Blot
Storage	Store product at –70oC. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.
Concentration	0.1 ug/ul

GENE INFORMATION

Gene Name	PDPK1 3-phosphoinositide dependent protein kinase-1 [Homo sapiens (human)]
Official Symbol	PDPK1
Synonyms	PDPK1; PDK1; PDPK2; PRO0461; 3-phosphoinositide dependent protein kinase-1; 3-phosphoinositide-dependent protein kinase 1; PkB kinase like gene 1; NP_001248745.1; EC 2.7.11.1; NP_002604.1
Gene ID	5170
mRNA Refseq	NM_002613
Protein Refseq	NP_002604
MIM	605213
UniProt ID	O15530
Chromosome Location	16p13.3
Pathway	Activation of NMDA receptor upon glutamate binding and postsynaptic events;

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	Activation of PKB; Adaptive Immune System
Function	3-phosphoinositide-dependent protein kinase activity; ATP binding; insulin receptor binding

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