Recombinant Human Polo-Like Kinase 1, His-tagged

Cat. No. PLK1-1085H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant full-length human PLK1 was expressed by baculovirus in Sf9 insect cells using a N-terminal His tag.
Species	Human
Source	Sf9 Cells
Description	PLK1 is a member of the Polo-Like Kinase family that localize to centrosomes or spindle pole bodies and undergo dramatic subcellular relocation during the cell cycle. Deregulated activities of PLK1 often result in abnormalities in centrosome duplication, maturation, and/or microtubule dynamics. PLK1 also regulate the function of the Golgi complex. Deregulated expression of human PLK1 is strongly correlated with the development of many types of malignancies, and ectopic expression of PLK1 dominant negative protein leads to rapid cell death.
Applications	Kinase Assay; Western Blot
Molecular Weight	70 kDa
Expression System	Sf9 insect cells using baculovirus
Form	Recombinant protein stored in 50mM sodium phosphate, pH 7.0, 300mM NaCl, 150 mM imidazole, 0.1 mM PMSF, 0.25 mM DTT, 25% glycerol.
Specific Activity	20 nmol/min/mg

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Purity	> 85 %
Concentration	0.1 ug/ul
Sequences	Full-length
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.
Pathways	APC/C-mediated degradation of cell cycle proteins; Activation of APC/C and APC/C:Cdc20 mediated degradation of mitotic proteins; Cell Cycle; Centrosome maturation; DNA Replication; FoxO family signaling; Golgi Cisternae Pericentriolar Stack Reorganization; M Phase; Mitotic G2-G2/M phases; Mitotic M-M/G1 phases; Mitotic Prophase; PLK1 signaling events; Polo-like kinase signaling events in the cell cycle; Progesterone-mediated oocyte maturation

GENE INFORMATION

Gene Name	PLK1 polo-like kinase 1 [Homo sapiens]
Official Symbol	PLK1
Synonyms	PLK1; polo-like kinase 1; PLK; STPK13; serine/threonine-protein kinase PLK1; PLK-1; polo like kinase; OTTHUMP00000122462; polo (Drosophia)-like kinase; serine/threonine-protein kinase 13; cell cycle regulated protein kinase
Gene ID	5347
mRNA Refseq	NM_005030

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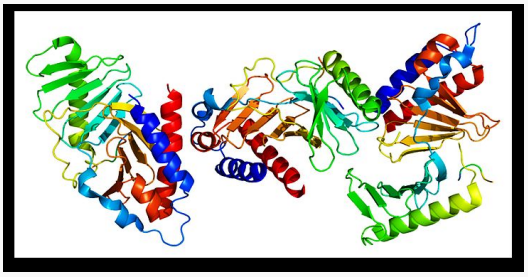
Protein Refseq	NP_005021
MIM	602098
UniProt ID	P53350
Chromosome Location	16p
Function	ATP binding; anaphase-promoting complex binding; nucleotide binding; polo kinase kinase activity; protein binding; protein kinase activity; protein kinase binding; protein serine/threonine kinase activity
PDB rendering based on 1q4k.	

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