Recombinant Human polo-like kinase 4 Protein, His tagged

Cat. No. PLK4-203H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human PLK4 protein (O00444-1) (Glu 581-Ser 812) with a His tag at the C-terminus was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	581-812aa
Description	Serine/threonine-protein kinase that plays a central role in centriole duplication. Able to trigger procentriole formation on the surface of the parental centriole cylinder, leading to the recruitment of centriole biogenesis proteins such as SASS6, CENPJ/CPAP, CCP110, CEP135 and gamma-tubulin. When overexpressed, it is able to induce centrosome amplification through the simultaneous generation of multiple procentrioles adjoining each parental centriole during S phase. Phosphorylates 'Ser-151' of FBXW5 during the G1/S transition, leading to inhibit FBXW5 ability to ubiquitinate SASS6. Its central role in centriole replication suggests a possible role in tumorigenesis, centrosome aberrations being frequently observed in tumors. Also involved in deuterosome-mediated centriole amplification in multiciliated that can generate more than 100 centrioles. Also involved in trophoblast differentiation by phosphorylating HAND1, leading to disrupt the interaction between HAND1 and MDFIC and activate HAND1. Phosphorylates CDC25C and CHEK2. Required for the recruitment of STIL to the centriole and for STIL-mediated centriole amplification.

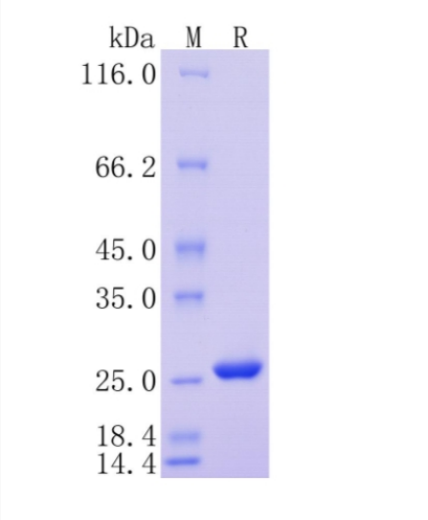
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Tag	C-His
Molecular Mass	28.4 kDa
Endotoxin	Less than 1.0 EU/μg by the LAL method.
Purity	>95% as determined by SDS-PAGE.
Storage	Please avoid repeated freeze-thaw cycles. Samples are stable for up to twelve months from date of receipt at -20 to -80 centigrade. It is recommended that aliquot the reconstituted solution to minimize freeze-thaw cycles.
Storage Buffer	Lyophilized from a 0.2 μm filtered solution of PBS, pH7.4, 5% Trehalose, 5% mannitol.
Reconstitution	Reconstitute at 250 μg/mL in sterile water.

GENE INFORMATION

Gene Name	PLK4 polo-like kinase 4 [Homo sapiens (human)]
Official Symbol	PLK4
Synonyms	PLK4; polo-like kinase 4; polo like kinase 4 (Drosophila), serine/threonine kinase 18, STK18; serine/threonine-protein kinase PLK4; Sak; PLK-4; Snk akin kinase; serine/threonine kinase 18; serine/threonine-protein kinase 18; serine/threonine protein kinase SAK; serine/threonine-protein kinase Sak; SAK; STK18;
Gene ID	10733
mRNA Refseq	NM_001190799

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Protein Refseq	NP_001177728
MIM	605031
UniProt ID	O00444
Protein on SDS-PAGE under reducing (R) condition.	

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