

## Recombinant Human PLK4 Protein (G581-G808), His tagged

Cat. No. PLK4-1167H Lot. No. (See product label)

### SPECIFICATION

**Product Overview** Recombinant Human 6His-TEV-PLK4(G581-G808) Protein was expressed in E. coli.

**Species** Human

**Source** E.coli

**ProteinLength** G581-G808

#### 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. Phosphorylates CEP131 at 'Ser-78' and PCM1 at 'Ser-372' which is essential for proper organization and integrity of centriolar satellites.

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<b>Form</b>	Liquid
<b>Endotoxin</b>	< 0.01 EU per µg of the protein
<b>Purity</b>	90%
<b>Stability</b>	Samples are stable for up to twelve months from date of receipt at -20 to -80 centigrade.
<b>Storage</b>	Store it under sterile conditions at -20 to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
<b>Storage Buffer</b>	Supplied as sterile 50 mM Tris-HCl (pH7.5), 200 mM NaCl, 20% glycerol
<b>Shipping</b>	It is shipped out with blue ice.

## GENE INFORMATION

<b>Gene Name</b>	PLK4 polo-like kinase 4 [ Homo sapiens (human) ]
<b>Official Symbol</b>	PLK4
<b>Synonyms</b>	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;
<b>Gene ID</b>	10733
<b>mRNA Refseq</b>	NM_001190799

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**Protein Refseq** NP\_001177728

**MIM** 605031

**UniProt ID** O00444

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