Recombinant Human PLK2 Protein (H57-A360), His tagged

Cat. No. PLK2-1306H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human 6His-TEV-(G)-PLK2(H57-A360) (C83S, V87T, A119S, A216S, C259A, C291S, L335T) Protein was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	H57-A360
Description	Tumor suppressor serine/threonine-protein kinase involved in synaptic plasticity, centriole duplication and G1/S phase transition. Polo-like kinases act by binding and phosphorylating proteins are that already phosphorylated on a specific motif recognized by the POLO box domains. Phosphorylates CENPJ, NPM1, RAPGEF2, RASGRF1, SNCA, SIPA1L1 and SYNGAP1. Plays a key role in synaptic plasticity and memory by regulating the Ras and Rap protein signaling: required for overactivity-dependent spine remodeling by phosphorylating the Ras activator RASGRF1 and the Rap inhibitor SIPA1L1 leading to their degradation by the proteasome. Conversely, phosphorylates the Rap activator RAPGEF2 and the Ras inhibitor SYNGAP1, promoting their activity. Also regulates synaptic plasticity independently of kinase activity, via its interaction with NSF that disrupts the interaction between NSF and the GRIA2 subunit of AMPARs, leading to a rapid rundown of AMPAR-mediated current that occludes long term depression. Required for procentriole formation and centriole duplication by phosphorylating CENPJ and NPM1, respectively. Its induction by p53/TP53 suggests that it may participate in the

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	mitotic checkpoint following stress.
Form	Liquid
Endotoxin	< 0.01 EU per μg of the protein
Purity	90%
Stability	Samples are stable for up to twelve months from date of receipt at -20 to -80 centigrade.
Storage	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.
Storage Buffer	Supplied as sterile 50 mM Tris-HCl (pH7.5), 200 mM NaCl, 20% glycerol
Shipping	It is shipped out with blue ice.

GENE INFORMATION

Gene Name	PLK2 polo-like kinase 2 [Homo sapiens (human)]
Official Symbol	PLK2
Synonyms	PLK2; polo-like kinase 2; polo like kinase 2 (Drosophila); serine/threonine-protein kinase PLK2; serum inducible kinase; SNK; PLK-2; serum-inducible kinase; serine/threonine-protein kinase SNK; hSNK; hPlk2;
Gene ID	10769
mRNA Refseq	NM_001252226

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Protein Refseq	NP_001239155
MIM	607023
UniProt ID	Q9NYY3

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