

PLK3 recombinant protein

Recombinant PLK3 (57-340) protein

CATALOG #
AAA60243

HOST
Baculovirus

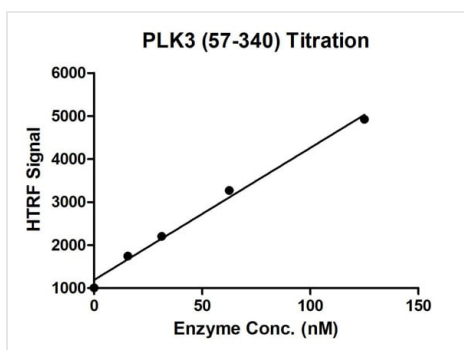
PRODUCT SYNONYMS

PLK3; Recombinant PLK3 (57-340) protein; Polo Like Kinase 3; PLK3 recombinant protein

PRODUCT SPECIFICATIONS

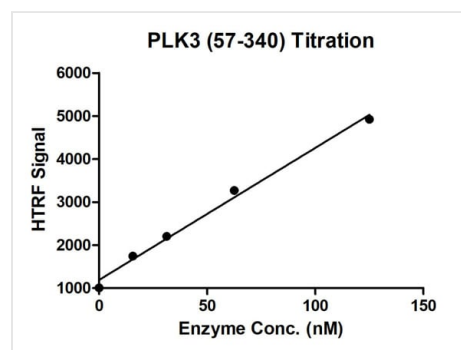
Host	Baculovirus
Form/Format	Recombinant PLK3 (57-340) protein is supplied in 25mM HEPES-NaOH pH7.5, 300mM NaCl, 10% glycerol, 0.04% Triton X-100, and 0.5mM TCEP.
Protein Species	Human
Tag	DYKDDDDK-Tag
Protein Details	Recombinant PLK3 (57-340) protein that includes amino acids 57-340 of human PLK3 protein (accession number NP_004064.2) was expressed in a baculovirus expression system, and contains an N-terminal DYKDDDDK tag.
Notes	This product was manufactured as described in Protein Details. Where possible, We has developed functional or activity assays for recombinant proteins. Additional characterization such as enzyme kinetic activity assays, inhibitor screening or other biological activity assays may not have been performed for every product. All available data for a given product is shown on the lot-specific Technical Data Sheet.
Dry Ice Note	The product may be shipped with dry ice, and an additional fee may be added to your shipping cost.
Preparation and Storage	Recombinant proteins in solution are temperature sensitive and must be stored at -80 degree C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage. Shipping Temp: Dry Ice

IMAGES



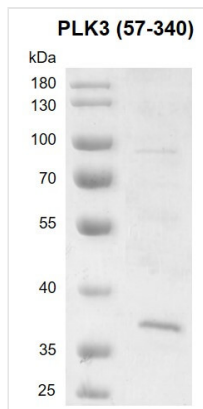
Application Data

HTRF assay for PLK3 (57-340) activity 1 μ M STK S3 substrate was incubated with different concentrations of PLK3 (57-340) protein in a 10 μ l reaction system containing 1 $\times$ Enzymatic Buffer, 5 mM MgCl₂, 1 mM DTT, 2 mg/ml CaSein and 100 μ M ATP for 1 hour. Then 10 μ l detection reagents containing STK antibody (1:2) and SA-XL665 (1:100) diluted with 1 $\times$ Detection Buffer were added and incubated with the reactions for 30 min. All the operations and reactions were performed at room temperature. HTRF assay was used for detection.



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SDS-PAGE

Recombinant PLK3 (57-340) protein 10% SDS-PAGE gel with Coomassie blue staining MW: 33.7 kDa Purity: >85%

ADDITIONAL INFORMATION

Related Product Information for PLK3 recombinant protein	Background: PLK3 (Polo Like Kinase 3) is a serine/threonine-protein kinase involved in cell cycle regulation, response to stress and Golgi disassembly and phosphorylates ATF2, BCL2L1, CDC25A, CDC25C, CHEK2, HIF1A, JUN, p53/ TP53, p73/TP73, PTEN, TOP2A and VRK1. PLK3 phosphorylates BCL2L1, leading to regulate the G2 checkpoint and progression to cytokinesis during mitosis and plays a key role in response to stress: rapidly activated upon stress stimulation, such as ionizing radiation, reactive oxygen species (ROS), hyperosmotic stress, UV irradiation and hypoxia. PLK3 involved in DNA damage response and G1/S transition checkpoint by phosphorylating CDC25A, p53/TP53 and p73/TP73 and phosphorylates p53/TP53 in response to reactive oxygen species (ROS), thereby promoting p53/TP53- mediated apoptosis and phosphorylates CHEK2 in response to DNA damage, promoting the G2/M transition checkpoint. It phosphorylates the transcription factor p73/TP73 in response to DNA damage, leading to inhibit p73/TP73-mediated transcriptional activation and pro-apoptotic functions and phosphorylates HIF1A and JUN is response to hypoxia and phosphorylates ATF2 following hyperosmotic stress in corneal epithelium. Diseases associated with PLK3 include Breast Cancer.
Product Categories/Family for PLK3 recombinant protein	Recombinant Proteins; Kinase

NCBI AND UNIPROT INFORMATION

NCBI GI #	41872374
NCBI GeneID	1263
NCBI Accession #	NP_004064.2
NCBI GenBank Nucleotide #	NM_004073.2
UniProt Accession #	Q9H4B4 ; Q15767 ; Q5JR99 ; Q96CV1
Molecular Weight	71,629 Da
NCBI Official Full Name	serine/threonine-protein kinase PLK3
NCBI Official Synonym Full Names	polo-like kinase 3
NCBI Official Symbol	PLK3
NCBI Official Synonym Symbols	CNK; FNK; PRK
NCBI Protein Information	serine/threonine-protein kinase PLK3; PLK-3; FGF-inducible kinase; cytokine-inducible kinase; proliferation-related kinase; cytokine-inducible serine/threonine-protein kinase
UniProt Protein Name	Serine/threonine-protein kinase PLK3
UniProt Gene Name	PLK3
UniProt Synonym Gene Names	CNK; FNK; PRK; PLK-3

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com

Online datasheet: <https://stage.aaabiotech.com/plk3-recombinant-protein-baculovirus/60243>