

PLK1 active protein

Recombinant PLK1 protein

CATALOG #
AAA60338

HOST
Baculovirus

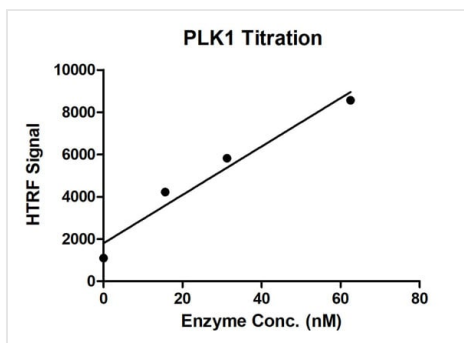
PRODUCT SYNONYMS

PLK1; Recombinant PLK1 protein; Polo Like Kinase 1; Serine/threonine-protein kinase 13 (STPK13); PLK1 active protein

PRODUCT SPECIFICATIONS

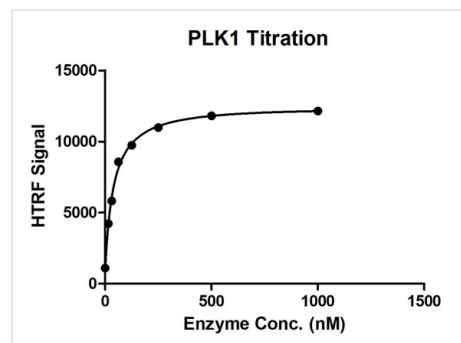
Host	Baculovirus
Purity/Purification	>80%
Form/Format	Recombinant PLK1 protein is supplied in 25 mM HEPES-NaOH pH 7.5, 300 mM NaCl, 10% glycerol, 0.04% Triton X-100, 0.5 mM TCEP.
Protein Species	Human
Tag	DYKDDDDK-Tag
Protein Details	Recombinant PLK1 protein was expressed in baculovirus expression system as the full length protein (accession number NP_005021.2) with a N-terminal DYKDDDDK tag. The molecular weight of the protein is 69.5 kDa.
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.

IMAGES



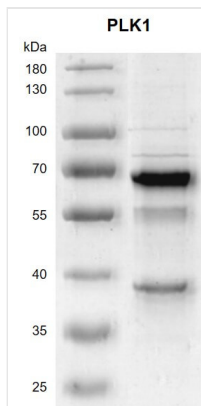
Bioactivity

HTRF Assay for Recombinant PLK1 activity. 1 μ M STK S1 substrate was incubated with different concentrations of PLK1 protein in 10 μ l reaction system containing 1 $\times$ Enzymatic Buffer, 5 mM MgCl₂, 1 mM DTT and 100 μ M ATP for 1 hour. The 10 μ l detection reagents containing anti-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 PLK1 protein gel 10% SDS-PAGE gel with Coomassie blue staining MW: 69.5 kDa Purity: >80%

ADDITIONAL INFORMATION

Related Product Information for PLK1 active protein	PLK1 (Polo Like Kinase 1), a serine/threonine-protein kinase that performs several important functions throughout M phase of the cell cycle, including the regulation of centrosome maturation and spindle assembly, the removal of cohesins from chromosome arms, the inactivation of anaphase-promoting complex/cyclosome (APC/C) inhibitors, and the regulation of mitotic exit and cytokinesis. Polo-like kinase proteins acts by binding and phosphorylating proteins are that already phosphorylated on a specific motif recognized by the POLO box domains. PLK1 plays a key role in centrosome functions and the assembly of bipolar spindles by phosphorylating KIZ, NEDD1 and NINL. NEDD1 phosphorylation promotes subsequent targeting of the gamma-tubulin ring complex (gTuRC) to the centrosome, an important step for spindle formation. Phosphorylation of NINL component of the centrosome leads to NINL dissociation from other centrosomal proteins. PLK1 involves in mitosis exit and cytokinesis by phosphorylating CEP55, ECT2, KIF20A/MKLP2, CENPU, PRC1 and RACGAP1.
Product Categories/Family for PLK1 active protein	Kinase; Recombinant Proteins

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.

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 Online datasheet: <https://stage.aaabiotech.com/baculovirus-active-protein/plk1/60338>