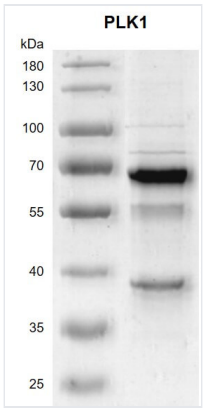
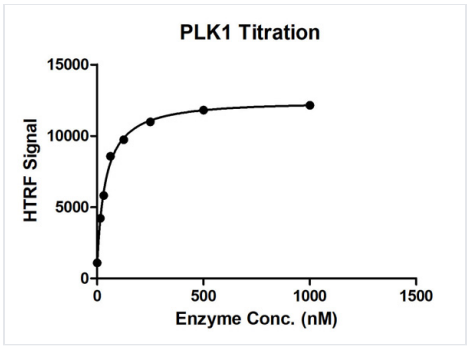
PLK1 Active Protein

PRODUCT OVERVIEW

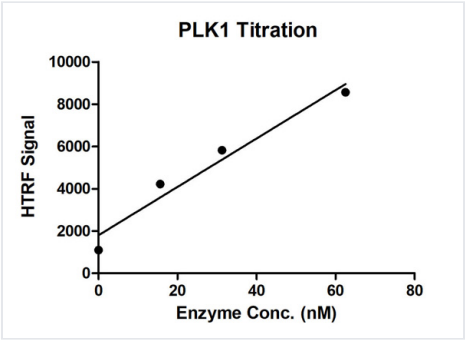
Product Name	PLK1, Active Protein
Full Product Name	Recombinant PLK1 protein
Product Gene Name	PLK1 active protein
Product Synonym Names	Polo Like Kinase 1; Serine/threonine-protein kinase 13 (STPK13)
Host	Baculovirus
Form/Format	Recombinant PLK1 protein is supplied in 25 mM HEPES-NaOH pH 7.5, 300 mM NaCl, 10% glycerol, 0.04% Triton X-100, 0.5 mM TCEP.
Purity/Purification	>80%
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.
Active Protein Note	Protein activity can be an ambiguous term. Please refer to the data sheet or inquire with Technical Support to determine the definition of activity for this product.
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 Shipment	Extra charge fee may add to your shipping cost as dry ice is required to ship this product.
Product Categories/Family for PLK1 active protein	Kinase; Recombinant Proteins
Application Notes for PLK1 active protein	This product was manufactured as described in Protein Details. Where possible, lab 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.
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.
Other Notes	Small volumes of PLK1 active protein vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for PLK1 purchase	MBS389586 is an active protein targeting PLK1. Also known as Recombinant PLK1 protein. Host: Baculovirus.



SDS-Page of PLK1 active protein
Recombinant PLK1 protein gel 10% SDS-PAGE gel with Coomassie blue staining MW: 69.5 kDa Purity: >80%



Activity of PLK1 active protein
HTRF Assay for Recombinant PLK1 activity. 1 uM STK S1 substrate was incubated with different concentrations of PLK1 protein in 10 ul reaction system containing 1×Enzymatic Buffer, 5 mM MgCl2, 1 mM DTT and 100 uM ATP for 1 hour. The 10 ul detection reagents containing anti-STK antibody (1:2) and SA-XL665 (1:100) diluted with 1× 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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ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for PLK1. It may not necessarily be applicable to this product.

Protein Family	Serine/threonine-protein kinase
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
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Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

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