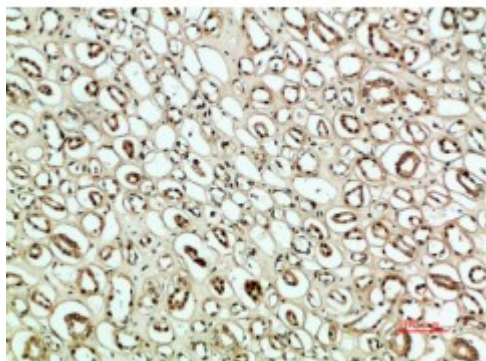


Anti-PLK2 antibody



Description	Rabbit polyclonal to PLK2.
Model	STJ98963
Host	Rabbit
Reactivity	Human, Rat
Applications	ELISA, WB
Immunogen	Synthetic peptide from human PLK2 protein.
Immunogen Region	377-451 aa
Gene ID	10769
Gene Symbol	PLK2
Dilution range	WB 1:500-2000ELISA 1:10000-20000
Specificity	The antibody detects endogenous PLK2.
Tissue Specificity	Expressed at higher level in the fetal lung, kidney, spleen and heart.
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Note	For Research Use Only (RUO).
Protein Name	Serine/threonine-protein kinase PLK2 Polo-like kinase 2 PLK-2 hPlk2 Serine/threonine-protein kinase SNK hSNK Serum-inducible kinase
Clonality	Polyclonal
Conjugation	Unconjugated

Isotype	IgG
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Concentration	1 mg/ml
Storage Instruction	Store at -20°C, and avoid repeat freeze-thaw cycles.
Database Links	HGNC:19699OMIM:607023
Alternative Names	Serine/threonine-protein kinase PLK2 Polo-like kinase 2 PLK-2 hPlk2 Serine/threonine-protein kinase SNK hSNK Serum-inducible kinase
Function	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 that are 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 mitotic checkpoint following stress.
Sequence and Domain Family	The POLO box domains act as phosphopeptide-binding module that recognize and bind serine-[phosphothreonine/phosphoserine]-(proline/X) motifs. PLK2 recognizes and binds docking proteins that are already phosphorylated on these motifs, and then phosphorylates them .
Cellular Localization	Cytoplasm, cytoskeleton, microtubule organizing center, centrosome, centriole Cell projection, dendrite. Localizes to centrosomes during early G1 phase where it only associates to the mother centriole and then distributes equally to both mother and daughter centrioles at the onset of S phase.
Post-translational Modifications	Catalytic activity is enhanced by phosphorylation of Thr-239.