

Anti-PLK2 Picoband Antibody

Catalog # ABO10264

Product Information

Application	WB, E
Primary Accession	Q9NYY3
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for PLK2 detection. Tested with WB, Direct ELISA in Human;Mouse;Rat.

Reconstitution Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	10769
Other Names	Serine/threonine-protein kinase PLK2, 2.7.11.21, Polo-like kinase 2, PLK-2, hPlk2, Serine/threonine-protein kinase SNK, hSNK, Serum-inducible kinase, PLK2, SNK
Calculated MW	78237
Application Details	Western blot, 0.1-0.5 µg/ml Direct ELISA, 0.1-0.5 µg/ml
Subcellular Localization	Cytoplasm, cytoskeleton, microtubule organizing center, centrosome, centriole.
Tissue Specificity	Expressed at higher level in the fetal lung, kidney, spleen and heart.
Source	Eukaryota
Contents	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
Immunogen	E. coli-derived human PLK2 recombinant protein (Position: A94-Q188).
Cross Reactivity	No cross reactivity with other proteins.
Storage	At -20 °C; for one year. After r ° Constitution, at 4 °C; for one month. It ° Can also be aliquotted and stored frozen at -20 °C; for a longer time. Avoid repeated freezing and thawing.

Protein Information

Name	PLK2
Synonyms	SNK
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 CPAP, 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 CPAP and NPM1, respectively. Its induction by p53/TP53 suggests that it may participate in the mitotic checkpoint following stress.
Cellular Location	Cytoplasm, cytoskeleton, microtubule organizing center, centrosome, centriole. Cell projection, dendrite Note=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
Tissue Location	Expressed at higher level in the fetal lung, kidney, spleen and heart.

Background

Polo-like kinase2, also known as SNK is an enzyme that in humans is encoded by the PLK2 gene. PLK2 is a member of the 'polo' family of serine/threonine protein kinases that have a role in normal cell division. The International Radiation Hybrid Mapping Consortium mapped the SNK gene to chromosome 5. SNK involved in synaptic plasticity, centriole duplication and G1/S phase transition. This gene 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.

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