

Mouse Plk2 Antibody (Center) Blocking peptide
Synthetic peptide
Catalog # BP14082c**Specification**

Mouse Plk2 Antibody (Center) Blocking peptide - Product InformationPrimary Accession [P53351](#)**Mouse Plk2 Antibody (Center) Blocking peptide - Additional Information****Gene ID** 20620**Other Names**

Serine/threonine-protein kinase PLK2, Polo-like kinase 2, PLK-2, Serine/threonine-protein kinase SNK, Serum-inducible kinase, Plk2, Snk

Target/Specificity

The synthetic peptide sequence used to generate the antibody AP14082c was selected from the Center region of Mouse Plk2. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

Mouse Plk2 Antibody (Center) Blocking peptide - 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 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

AMPA-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.

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

Brain, lung and heart.

Mouse Plk2 Antibody (Center) Blocking peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

Mouse Plk2 Antibody (Center) Blocking peptide - Images**Mouse Plk2 Antibody (Center) Blocking peptide - Background**

Plk2 may play a role in the division of at least some cell types, such as fibroblasts, and could function in embryogenesis, wound healing or neoplasia.

Mouse Plk2 Antibody (Center) Blocking peptide - References

Hutchins, J.R., et al. Science 328(5978):593-599(2010) Inglis, K.J., et al. J. Biol. Chem. 284(5):2598-2602(2009) Park, Y.Y., et al. Biochem. Biophys. Res. Commun. 362(1):107-113(2007) Nishimura, M., et al. DNA Res. 11(5):315-323(2004) Ma, S., et al. Mol. Cell. Biol. 23(19):6936-6943(2003)