

Mouse Plk2 Antibody (Center)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP14082C**Specification**

Mouse Plk2 Antibody (Center) - Product Information

Application	WB,E
Primary Accession	P53351
Other Accession	O9R012 , NP_690017.2
Reactivity	Human, Mouse
Predicted	Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	77812
Antigen Region	354-382

Mouse Plk2 Antibody (Center) - 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

This Mouse Plk2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 354-382 amino acids from the Central region of mouse Plk2.

Dilution

WB~~1:1000

E~~Use at an assay dependent concentration.

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Mouse Plk2 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Mouse Plk2 Antibody (Center) - 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

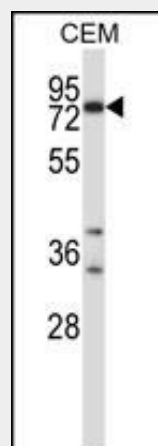
Brain, lung and heart.

Mouse Plk2 Antibody (Center) - Protocols

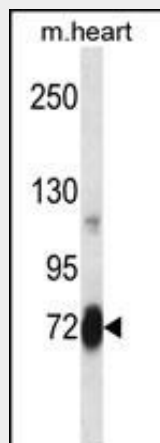
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Mouse Plk2 Antibody (Center) - Images



Mouse Plk2 Antibody (Center) (Cat. #AP14082c) western blot analysis in CEM cell line lysates (35ug/lane). This demonstrates the Plk2 antibody detected the Plk2 protein (arrow).



Mouse Plk2 Antibody (Center) (Cat. #AP14082c) western blot analysis in mouse heart tissue lysates (35ug/lane). This demonstrates the Plk2 antibody detected the Plk2 protein (arrow).

Mouse Plk2 Antibody (Center) - 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) - 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)