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# Mouse Aurka Antibody (N-term)

**Affinity Purified Rabbit Polyclonal Antibody (Pab)**
**Catalog # AP14609a**

## Specification

### Mouse Aurka Antibody (N-term) - Product Information

| | |
|---|---|
| Application | **WB,E** |
| Primary Accession | P97477 |
| Other Accession | NP_035627.1 |
| Reactivity | **Mouse** |
| Host | **Rabbit** |
| Clonality | **Polyclonal** |
| Isotype | **Rabbit IgG** |
| Calculated MW | **44772** |
| Antigen Region | **93-120** |

### Mouse Aurka Antibody (N-term) - Additional Information

**Gene ID** 20878

**Other Names**
Aurora kinase A, Aurora 2, Aurora family kinase 1, Aurora/IPL1-related kinase 1, ARK-1, Aurora-related kinase 1, Ipl1- and aurora-related kinase 1, Serine/threonine-protein kinase 6, Serine/threonine-protein kinase Ayk1, Serine/threonine-protein kinase aurora-A, Aurka

**Target/Specificity**
This Mouse Aurka antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 93-120 amino acids from the N-terminal region of mouse Aurka.

**Dilution**
WB~~1:1000

**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 Aurka Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

### Mouse Aurka Antibody (N-term) - Protein Information

**Name** Aurka

**Function** Mitotic serine/threonine kinase that contributes to the regulation of cell cycle progression (By similarity). Associates with the centrosome and the spindle microtubules during mitosis and plays a critical role in various mitotic events including the establishment of mitotic spindle, centrosome duplication, centrosome separation as well as maturation, chromosomal alignment, spindle assembly checkpoint, and cytokinesis (PubMed:9245792, PubMed:19075002). Required for normal spindle positioning during mitosis and for the localization of NUMA1 and DCTN1 to the cell cortex during metaphase (By similarity). Required for initial activation of CDK1 at centrosomes (By similarity). Phosphorylates numerous target proteins, including ARHGEF2, BORA, BRCA1, CDC25B, DLGP5, HDAC6, KIF2A, LATS2, NDEL1, PARD3, PPP1R2, PLK1, RASSF1, TACC3, p53/TP53 and TPX2 (By similarity). Regulates KIF2A tubulin depolymerase activity (By similarity). Required for normal axon formation (By similarity). Plays a role in microtubule remodeling during neurite extension (PubMed:19668197). Important for microtubule formation and/or stabilization (By similarity). Also acts as a key regulatory component of the p53/TP53 pathway, and particularly the checkpoint-response pathways critical for oncogenic transformation of cells, by phosphorylating and destabilizing p53/TP53 (By similarity). Phosphorylates its own inhibitors, the protein phosphatase type 1 (PP1) isoforms, to inhibit their activity (By similarity). Inhibits cilia outgrowth (By similarity). Required for cilia disassembly via phosphorylation of HDAC6 and subsequent deacetylation of alpha-tubulin (PubMed:20643351). Regulates protein levels of the anti-apoptosis protein BIRC5 by suppressing the expression of the SCF(FBXL7) E3 ubiquitin-protein ligase substrate adapter FBXL7 through the phosphorylation of the transcription factor FOXP1 (By similarity).

**Cellular Location**
Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Cytoplasm, cytoskeleton, spindle pole. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome, centriole. Cell projection, neuron projection. Cell projection, cilium {ECO:0000250|UniProtKB:O14965}. Cytoplasm, cytoskeleton, cilium basal body. Basolateral cell membrane {ECO:0000250|UniProtKB:F1PNY0}. Note=Localizes on centrosomes in interphase cells and at each spindle pole in mitosis (PubMed:9245792) Associates with both the pericentriolar material (PCM) and centrioles (By similarity). Colocalized with SIRT2 at centrosome (By similarity) Detected at the neurite hillock in developing neurons (PubMed:19668197). The localization to the spindle poles is regulated by AAAS (By similarity). {ECO:0000250|UniProtKB:O14965, ECO:0000269|PubMed:19668197, ECO:0000269|PubMed:9245792}

**Tissue Location**
Detected in embryonic neurons in dorsal root ganglia and brain cortex (at protein level). Highly expressed in testis, in about one third of the seminiferous tubules. Expression is restricted to specific spermatocytes nearing completion of prophase, with levels falling off on transition to elongated spermatids. Highly expressed in the ovary, expression in the oocyte starts around the transition to large growing follicle. Abundant expression is seen in the proliferating granulosa and thecal cells of the growing follicle, and in the young corpus luteum. Very weakly expressed in spleen and intestine.

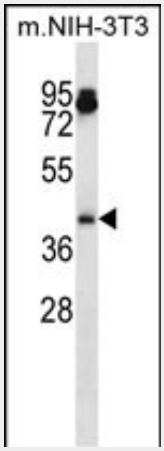
## Mouse Aurka Antibody (N-term) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

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## Mouse Aurka Antibody (N-term) - Images




Mouse Aurka Antibody (N-term) (Cat. #AP14609a) western blot analysis in mouse NIH-3T3 cell line lysates (35ug/lane).This demonstrates the Aurka antibody detected the Aurka protein (arrow).

## Mouse Aurka Antibody (N-term) - Background

Contributes to the regulation of cell cycle progression. Required for normal mitosis. Associates with the centrosome and the spindle microtubules during mitosis and functions in centrosome maturation, spindle assembly, maintenance of spindle bipolarity, centrosome separation and mitotic checkpoint control. Phosphorylates numerous target proteins, including ARHGEF2, BRCA1, KIF2A, NDEL1, PARD3, PLK1 and BORA. Regulates KIF2A tubulin depolymerase activity (By similarity). Required for normal axon formation. Plays a role in microtubule remodeling during neurite extension. Important for microtubule formation and/or stabilization.

## Mouse Aurka Antibody (N-term) - References

Kinzel, D., et al. Dev. Cell 19(1):66-77(2010)
Van Horn, R.D., et al. J. Biol. Chem. 285(28):21849-21857(2010)
Mori, D., et al. Nat. Cell Biol. 11(9):1057-1068(2009)
Li, C.C., et al. Mol. Cancer Res. 7(5):678-688(2009)
Tseng, Y.S., et al. BMC Cancer 9, 435 (2009) :