

PRODUCT INFORMATION

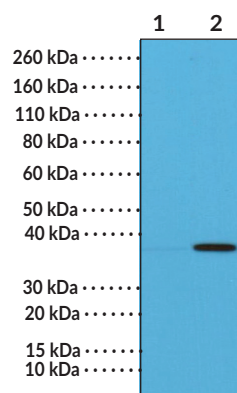


Aurora B Kinase (N-Term) Rabbit Monoclonal Antibody (Clone RM278) Item No. 32228

Overview and Properties

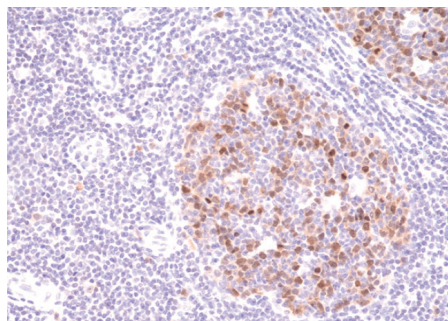
Contents:	This vial contains 100 µl of protein A-affinity purified monoclonal antibody.
Synonyms:	Aurora Kinase B, Aurora- and IPL-1-like Midbody-associated Protein 1, AIM-1, Aurora-related Kinase 2, ARK-2
Immunogen:	Peptide from the N-terminal region of human Aurora B kinase
Cross Reactivity:	(+) Aurora B kinase
Species Reactivity:	(+) Human
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥1 year
Storage Buffer:	PBS with 50% glycerol, 1% BSA, and 0.09% sodium azide
Clone:	RM278
Host:	Rabbit
Isotype:	IgG
Applications:	Immunohistochemistry (IHC) and Western blot (WB); the recommended starting dilution is 1:200-1:500 for IHC and 1:1,000-1:2,000 for WB. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Images



Lane 1: HeLa cells untreated
Lane 2: HeLa cells treated

WB of HeLa cells untreated or treated with nocodazole using Aurora B Kinase (N-Term) Rabbit Monoclonal Antibody (Clone RM278) at a 1:1,000 dilution.



Immunohistochemical staining of formalin-fixed and paraffin-embedded human tonsil tissue using Aurora B Kinase (N-Term) Rabbit Monoclonal Antibody (Clone RM278) at a 1:500 dilution.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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Description

Aurora B kinase is a serine/threonine protein kinase involved in the regulation of mitosis.¹ It is composed of an N-terminal regulatory domain containing KEN- and A-box motifs, which regulate degradation of Aurora B, and a C-terminal catalytic domain containing an activation loop and a D-box, which also regulates Aurora B degradation. Aurora B kinase is ubiquitously expressed with the highest expression at the G₂/M phase of the cell cycle and the highest activity during mitosis.² It localizes to the nucleus, where it is a component of the chromosome passenger complex (CPC).³ Aurora B kinase is involved in the modification of chromatin and centromeres by phosphorylating histone H3 and centromere protein A (CENP-A), respectively, during mitosis.^{1,3} It is also involved in chromatid separation, by phosphorylating mitotic centromere-associated kinesin (MCAK) to stabilize kinetochore-microtubule attachments, and in the regulation of cytokinesis.¹ *AURKB*, the gene encoding aurora B kinase, is overexpressed in a variety of cancers and its expression levels are positively correlated with disease severity, poor prognosis, and lower overall survival.² Cayman's Aurora B Kinase (N-Term) Rabbit Monoclonal Antibody (Clone RM278) can be used for immunohistochemistry (IHC) and Western blot (WB) applications.

References

1. Fu, J., Bian, M., Jiang, Q., *et al.* Roles of Aurora kinases in mitosis and tumorigenesis. *Mol. Cancer Res.* **5(1)**, 1-10 (2007).
2. Portello, G., Passaro, C., Chieffi, P., *et al.* Aurora B: A new prognostic marker and therapeutic target in cancer. *Curr. Med. Chem.* **18(4)**, 482-496 (2011).
3. Zhang, X. Aurora kinases. *Curr. Biol.* **18(4)**, R146-148 (2008).

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