Datasheet for ABIN968357

anti-Aurora Kinase B antibody (AA 2-124)

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Overview

Quantity:	50 µg
Target:	Aurora Kinase B (AURKB)
Binding Specificity:	AA 2-124
Reactivity:	Human, Mouse, Rat
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This Aurora Kinase B antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF)

Product Details

Immunogen:	Rat AIM-1 aa. 2-124
Clone:	6-AIM
Isotype:	IgG1
Cross-Reactivity:	Human, Mouse (Murine)
Characteristics:	1. Since applications vary, each investigator should titrate the reagent to obtain optimal results. 2. Source of all serum proteins is from USDA inspected abattoirs located in the United States. 3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing. 4. Please refer to us for technical protocols.
Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity

Product Details

	chromatography.

Target Details

Target:	Aurora Kinase B (AURKB)
Alternative Name:	AIM-1 (AURKB Products)
Background:	The mitotic phase of the cell cycle is a complex process that ensures the fidelity of chromosome segregation. During the final stage of mitosis (telophase), segregated chromosomes become less condense and nuclear membranes surround the two sets of daughter chromosomes. Simultaneously, the separation and segregation of the cytoplasm (cytokinesis) ensures complete division and formation of two identical daughter cells. Regulation of cytokinesis is poorly understood and errors in this process can lead to cell death or oncogenesis. The Drosophila serine/threonine protein kinase Aurora and the S. cerevisiae Ipl1 kinase are highly homologous and are required for progression through mitosis. Their mammalian homolog AIM-1 (also known as Aurora and Ipl1-like midbody associated protein) accumulates at the G2/M interface. During late anaphase, AIM-1 is found at the equator of central spindles. However, during telophase and cytokinesis, it is found at the midbody. Although over-expression of a kinase-inactive AIM-1 mutant disrupts formation of the cleavage furrow, nuclear division is unaffected. Thus, it is thought that AIM-1 is essential for cleavage furrowing and the onset of cytokinesis. Synonyms: Aurora B, Aurora and Ipl1-like midbody associated protein
Molecular Weight:	41 kDa
Pathways:	TCR Signaling, Cell Division Cycle, Maintenance of Protein Location, Hepatitis C, Toll-Like Receptors Cascades

Application Details

Comment:	Related Products: ABIN967389, ABIN968537
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	250 µg/mL
Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09 % sodium azide.

Handling

Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Store undiluted at -20°C.

Publications

Product cited in:

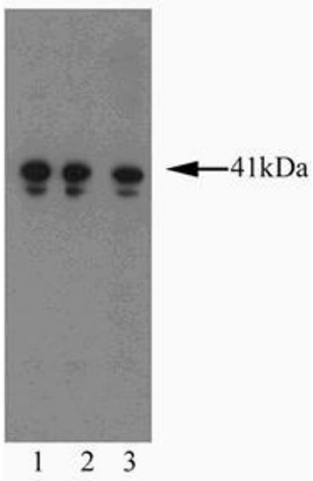
Trinkle-Mulcahy, Andrews, Wickramasinghe, Sleeman, Prescott, Lam, Lyon, Swedlow, Lamond: " Time-lapse imaging reveals dynamic relocalization of PP1gamma throughout the mammalian cell cycle." in: **Molecular biology of the cell**, Vol. 14, Issue 1, pp. 107-17, (2003) (PubMed).

Chen, Jin, Tahir, Zhang, Liu, Sarthy, McGonigal, Liu, Rosenberg, Ng: "Survivin enhances Aurora-B kinase activity and localizes Aurora-B in human cells." in: **The Journal of biological chemistry**, Vol. 278, Issue 1, pp. 486-90, (2002) (PubMed).

Lange, Rebollo, Herold, González: "Cdc37 is essential for chromosome segregation and cytokinesis in higher eukaryotes." in: **The EMBO journal**, Vol. 21, Issue 20, pp. 5364-74, (2002) (PubMed).

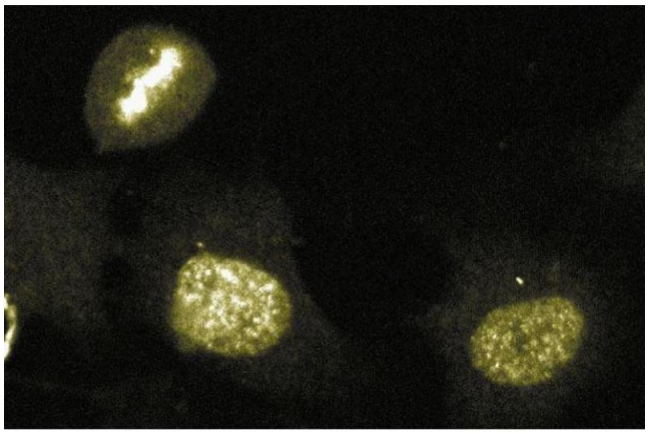
Tatsuka, Katayama, Ota, Tanaka, Odashima, Suzuki, Terada: "Multinuclearity and increased ploidy caused by overexpression of the aurora- and Ipl1-like midbody-associated protein mitotic kinase in human cancer cells." in: **Cancer research**, Vol. 58, Issue 21, pp. 4811-6, (1998) (PubMed).

Terada, Tatsuka, Suzuki, Yasuda, Fujita, Otsu: "AIM-1: a mammalian midbody-associated protein required for cytokinesis." in: **The EMBO journal**, Vol. 17, Issue 3, pp. 667-76, (1998) (PubMed).



Western Blotting

Image 1. Western blot analysis of AIM-1 on a Jurkat cell lysate (Human T-cell leukemia, ATCC TIB-152). Lane 1: 1:250, lane 2: 1:500, lane 3: 1:1000 dilution of the Mouse Anti- AIM-1 antibody.



Immunofluorescence

Image 2. Immunofluorescence staining of human endothelial cells.