Datasheet for ABIN129612

# anti-Aurora Kinase B antibody (Internal Region)

4 Images | 18 Publications

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## Overview

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|---|---|
| Quantity: | 100 µg |
| Target: | Aurora Kinase B (AURKB) |
| Binding Specificity: | Internal Region |
| Reactivity: | Human, Monkey |
| Host: | Rabbit |
| Clonality: | Polyclonal |
| Application: | Western Blotting (WB), ELISA, Immunohistochemistry (IHC), Fluorescence Microscopy (FM) |

## Product Details

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| Purpose: | AURORA KINASE B phospho T232 Antibody |
| Immunogen: | Immunogen: This affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to an internal region surrounding T232 of Human Aurora Kinase B protein.<br>Immunogen Type: Conjugated Peptide |
| Isotype: | IgG |
| Cross-Reactivity (Details): | Anti-Phospho Aurora B pT232 affinity purified antibody is directed against the phosphorylated form of human Aurora Kinase B at the pT232 residue. |
| Characteristics: | Synonyms: rabbit anti-Aurora B pT232 Antibody, Phospho Aurora B, AIK2 antibody, AIM1 antibody, ARK2 antibody, AurB antibody, AURKB antibody, Aurora 1 antibody, Aurora and Ipl1 like midbody associated protein 1 antibody |
| Purification: | The product was affinity purified from monospecific antiserum by immunoaffinity purification. |

## Product Details

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| Sterility: | Sterile filtered |

## Target Details

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| Target: | Aurora Kinase B (AURKB) |
| Alternative Name: | AURKB (AURKB Products) |
| Background: | Background: Aurora Kinase B (Aurora-B) is a Ser/Thr protein kinase member of the Aurora subfamily that may be directly involved in regulating the cleavage of polar spindle microtubules and is a key regulator for the onset of cytokinesis during mitosis. Aurora Kinase B is localized to the midzone of central spindle in late anaphase and concentrated into the midbody in telophase and cytokinesis and is colocalized with gamma tubulin in the mid-body. High levels of Aurora B expression are seen in the thymus, although it is also expressed in the spleen, lung, testis, colon, placenta and fetal liver. Aurora B is expressed during S and G2/M phase and expression is up-regulated in cancer cells during M phase. Anti-AUROA B pT232 Antibody is useful for researchers interested in gene expression, DNA damage, cytokinesis, and transcription activities. |
| Gene ID: | 9212, 83776600 |
| UniProt: | Q96GD4 |
| Pathways: | TCR Signaling, Cell Division Cycle, Maintenance of Protein Location, Hepatitis C, Toll-Like Receptors Cascades |

## Application Details

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| Application Notes: | Immunohistochemistry Dilution: User Optimized<br>Application Note: Phospho pT232 Aurora B antibody has been tested for use in ELISA, immunohistochemistry, and by western blot. See below for specific protocol. Expect a band approximately 39 kDa in size corresponding to Aurora Kinase B by western blotting in the appropriate cell lysate or extract. HeLa cell lysate can be used as a positive control.<br>Western Blot Dilution: 1:250 - 1:2,000<br>ELISA Dilution: 1:10,000 - 1:30,000<br>IF Microscopy Dilution: User Optimized<br>Other: User Optimized |
| Restrictions: | For Research Use only |

## Handling

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| Format: | Liquid |
| Concentration: | 1.21 mg/mL |
| Buffer: | Buffer: 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2<br>Stabilizer: None<br>Preservative: 0.01 % (w/v) Sodium Azide |
| 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: | 4 °C,-20 °C |
| Storage Comment: | Store Phospho Specific Antibody at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use. |
| Expiry Date: | 12 months |

## Publications

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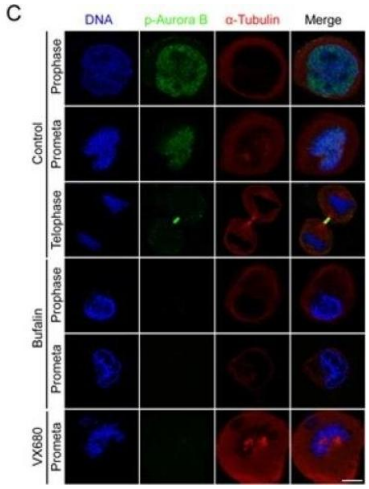
| Product cited in: | Barroso-Vilares, Macedo, Reis, Warren, Compton, Logarinho: "Small-molecule inhibition of aging-associated chromosomal instability delays cellular senescence." in: **EMBO reports**, Vol. 21, Issue 5, pp. e49248, (2020) (PubMed).<br><br>Achuthankutty, Thakur, Haahr, Hoffmann, Drainas, Bizard, Weischenfeldt, Hickson, Mailand: " Regulation of ETAA1-mediated ATR activation couples DNA replication fidelity and genome stability." in: **The Journal of cell biology**, Vol. 218, Issue 12, pp. 3943-3953, (2020) (PubMed).<br><br>Novais-Cruz, Alba Abad, van IJcken, Galjart, Jeyaprakash, Maiato, Ferrás: "Mitotic progression, arrest, exit or death relies on centromere structural integrity, rather than de novo transcription." in: **eLife**, Vol. 7, (2019) (PubMed).<br><br>Liu, Kwon, Mannino, Yang, Renda, Khodjakov, Pellman: "Nuclear envelope assembly defects link mitotic errors to chromothripsis." in: **Nature**, Vol. 561, Issue 7724, pp. 551-555, (2019) (PubMed ).<br><br>Xie, Lin, Wu, Tan, Cheng, Zhang: "Cardiac glycoside bufalin blocks cancer cell growth by |

## Publications

inhibition of Aurora A and Aurora B activation via PI3K-Akt pathway." in: **Oncotarget**, Vol. 9, Issue 17, pp. 13783-13795, (2018) (PubMed).

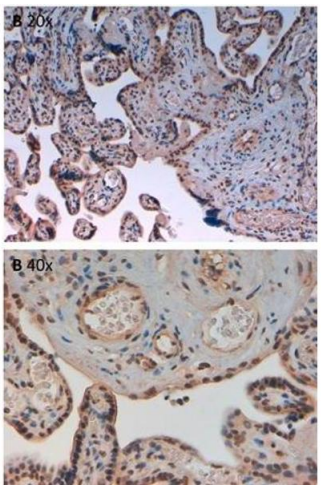
There are more publications referencing this product on: Product page

## Images



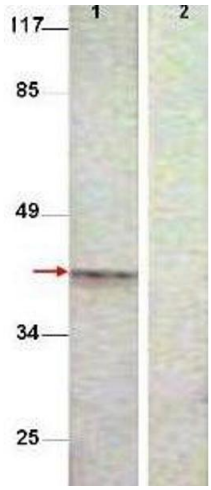

**Immunofluorescence (Cultured Cells)**

**Image 1.** Bufalin prevents Aurora A recruitment to mitotic centrosomes and Aurora B recruitment to unattached kinetochores(A) HeLa cells were synchronized by a single thymidine treatment, released in the presence or absence of bufalin (100 nM) for 9 h, and stained for phospho-Aurora A (Green), α-tubulin (Red) and DNA (Blue). The scale bar represents 10 μm. (B) The phospho-Aurora A (Thr288) staining signals in (A) were normalized to the intensity in a same-size cytoplasmic region for at least five prometaphase cells per condition from three different experiments. ***p < 0.001, versus control prometaphase. Error bar represents SEM. (C) Thymidine-synchronized HeLa cells were treated with or without bufalin (100 nM) for 9 h and then stained for phospho-Aurora B (Green), α-tubulin (Red) and DNA (Blue). The scale bar represents 10 μm. (D) For quantification of the intensity of phospho-Aurora B (Thr232) in (C), more than 88 phospho-Aurora B (Thr232) staining signals from at least five prometaphase cells were analyzed each in control, bufalin (100 nM) and VX680 (0.5 μ M) arrest. ***p < 0.001, versus control prometaphase. Error bar represents SEM. - figure provided by CiteAb. Source: PMID29568394




## Immunohistochemistry

**Image 2.** Immunohistochemistry of Rabbit Anti-AuroraB pT232 Antibody. Tissue: human placenta pH9 (A) at 20x and 40x. Fixation: formalin fixed paraffin embedded. Antigen retrieval: not required. Primary antibody: AuroraB pT232 antibody at 10 µg/mL for 1 h at RT. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Localization: AuroraB pT232 is cytoplasmic. Staining: AuroraB pT232 as precipitated brown signal with hematoxylin purple nuclear counterstain.




## Western Blotting

**Image 3.** Western Blot shows detection of Aurora B protein at 39 kDa (predicted band size). All lanes : Aurora B (phospho T232) antibody diluted 1:500. Lane 1 : Extract from COS7 cells treated with Nocodazole (1ug/ml, 16 hrs). Lane 2 : Extract from COS7 cells treated with Nocodazole (1ug/ml, 16 hrs) and with the phosphopeptide immunogen.

Please check the product details page for more images. Overall 4 images are available for ABIN129612.