

Datasheet for ABIN7145079

## anti-Aurora Kinase B antibody (AA 1-255)

3 Images



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### Overview

Quantity:	100 µg
Target:	Aurora Kinase B (AURKB)
Binding Specificity:	AA 1-255
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This Aurora Kinase B antibody is un-conjugated
Application:	ELISA, Immunohistochemistry (IHC), Immunofluorescence (IF)

### Product Details

Immunogen:	Recombinant Human Aurora kinase B protein (1-255AA)
Isotype:	IgG
Cross-Reactivity:	Human
Purification:	>95%, Protein G purified

### Target Details

Target:	Aurora Kinase B (AURKB)
Alternative Name:	AURKB ( <a href="#">AURKB Products</a> )
Background:	Background: Serine/threonine-protein kinase component of the chromosomal passenger complex (CPC), a complex that acts as a key regulator of mitosis. The CPC complex has

essential functions at the centromere in ensuring correct chromosome alignment and segregation and is required for chromatin-induced microtubule stabilization and spindle assembly. Involved in the bipolar attachment of spindle microtubules to kinetochores and is a key regulator for the onset of cytokinesis during mitosis. Required for central/midzone spindle assembly and cleavage furrow formation. Key component of the cytokinesis checkpoint, a process required to delay abscission to prevent both premature resolution of intercellular chromosome bridges and accumulation of DNA damage: phosphorylates CHMP4C, leading to retain abscission-competent VPS4 (VPS4A and/or VPS4B) at the midbody ring until abscission checkpoint signaling is terminated at late cytokinesis (PubMed:22422861, PubMed:24814515). AURKB phosphorylates the CPC complex subunits BIRC5/survivin, CDCA8/borealin and INCENP. Phosphorylation of INCENP leads to increased AURKB activity. Other known AURKB substrates involved in centromeric functions and mitosis are CENPA, DES/desmin, GPAF, KIF2C, NSUN2, RACGAP1, SEPT1, VIM/vimentin, GSG2/Haspin, and histone H3. A positive feedback loop involving GSG2 and AURKB contributes to localization of CPC to centromeres. Phosphorylation of VIM controls vimentin filament segregation in cytokinetic process, whereas histone H3 is phosphorylated at 'Ser-10' and 'Ser-28' during mitosis (H3S10ph and H3S28ph, respectively). A positive feedback between GSG2 and AURKB contributes to CPC localization. AURKB is also required for kinetochore localization of BUB1 and SGOL1. Phosphorylation of p53/TP53 negatively regulates its transcriptional activity. Key regulator of active promoters in resting B- and T-lymphocytes: acts by mediating phosphorylation of H3S28ph at active promoters in resting B-cells, inhibiting RNF2/RING1B-mediated ubiquitination of histone H2A and enhancing binding and activity of the USP16 deubiquitinase at transcribed genes.

Aliases: AIK2 antibody, AIM-1 antibody, AIM1 antibody, ARK-2 antibody, ARK2 antibody, AurB antibody, AURKB antibody, AURKB\_HUMAN antibody, Aurora 1 antibody, Aurora and Ipl1 like midbody associated protein 1 antibody, Aurora kinase B antibody, Aurora related kinase 2 antibody, Aurora- and Ipl1-like midbody-associated protein 1 antibody, Aurora-B antibody, Aurora-related kinase 2 antibody, Aurora/IPL1 related kinase 2 antibody, Aurora/IPL1-related kinase 2 antibody, IPL1 antibody, PPP1R48 antibody, Protein phosphatase 1 regulatory subunit 48 antibody, Serine/threonine kinase 12 antibody, Serine/threonine protein kinase 12 antibody, Serine/threonine-protein kinase 12 antibody, Serine/threonine-protein kinase aurora-B antibody, STK-1 antibody, STK1 antibody, STK12 antibody, STK5 antibody

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UniProt: [Q96GD4](#)

Pathways: [TCR Signaling](#), [Cell Division Cycle](#), [Maintenance of Protein Location](#), [Hepatitis C](#), [Toll-Like Receptors Cascades](#)

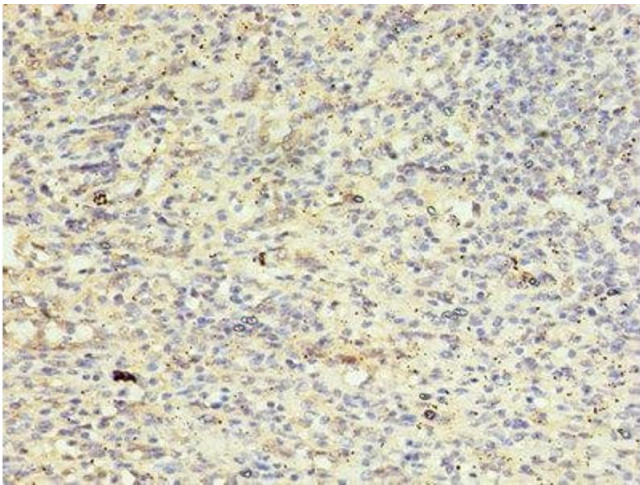
## Application Details

Application Notes:	Recommended dilution: IHC:1:20-1:200, IF:1:50-1:200,
Restrictions:	For Research Use only

## Handling

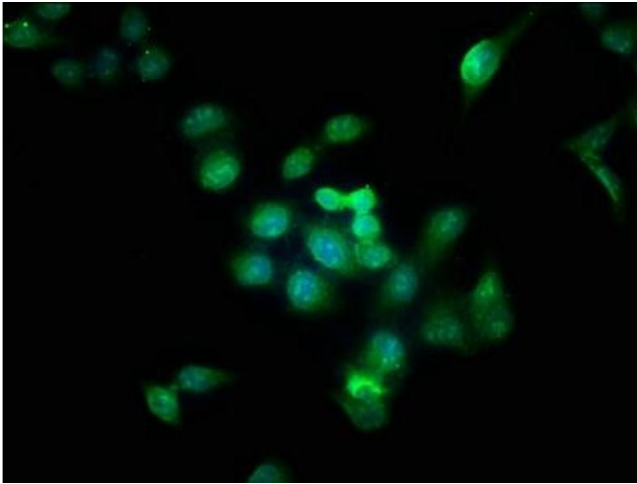
Format:	Liquid
Buffer:	Preservative: 0.03 % Proclin 300 Constituents: 50 % Glycerol, 0.01M PBS, PH 7.4
Preservative:	ProClin
Precaution of Use:	This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C,-80 °C
Storage Comment:	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.

## Images



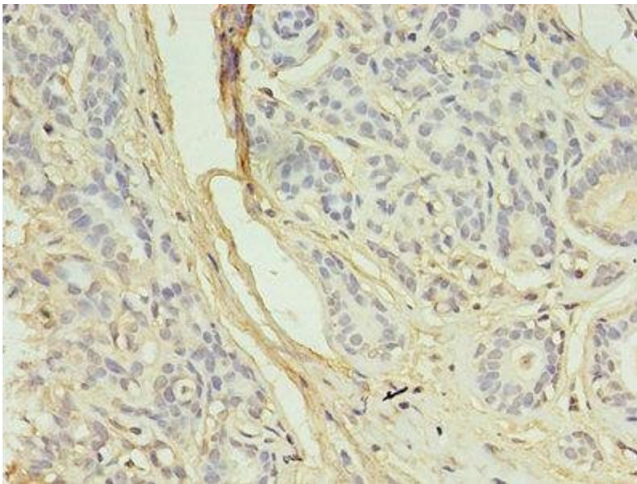
### Immunohistochemistry

**Image 1.** Immunohistochemistry of paraffin-embedded human spleen tissue using ABIN7145079 at dilution of 1:100



#### Immunofluorescence

**Image 2.** Immunofluorescence staining of HeLa cells with ABIN7145079 at 1:166, counter-stained with DAPI. The cells were fixed in 4 % formaldehyde, permeabilized using 0.2 % Triton X-100 and blocked in 10 % normal Goat Serum. The cells were then incubated with the antibody overnight at 4 °C. The secondary antibody was Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



#### Immunohistochemistry

**Image 3.** Immunohistochemistry of paraffin-embedded human breast cancer using ABIN7145079 at dilution of 1:100