Datasheet for ABIN6256516

anti-Aurora Kinase B antibody (pThr232)

4 Images

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Overview

Quantity:	100 µL
Target:	Aurora Kinase B (AURKB)
Binding Specificity:	pThr232
Reactivity:	Human, Mouse, Rat, Monkey
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This Aurora Kinase B antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunohistochemistry (IHC), Immunofluorescence (IF), Immunocytochemistry (ICC)

Product Details

Immunogen:	A synthesized peptide derived from human AurB around the phosphorylation site of Threonine 232
Isotype:	IgG
Specificity:	Phospho-AurB (Thr232) Antibody detects endogenous levels of AurB only when phosphorylated at Threonine 232
Cross-Reactivity:	Human, Monkey, Mouse (Murine), Rat (Rattus)
Purification:	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho- and non-phospho-peptide affinity columns.

Target Details

Target:	Aurora Kinase B (AURKB)
Alternative Name:	AurB (AURKB Products)
Background:	Description: 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, HASPIN, and histone H3. A positive feedback loop involving HASPIN 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 HASPIN and AURKB contributes to CPC localization. AURKB is also required for kinetochore localization of BUB1 and SGO1. 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. Gene: AURKB
Molecular Weight:	39kDa
Gene ID:	9212
UniProt:	Q96GD4
Pathways:	TCR Signaling, Cell Division Cycle, Maintenance of Protein Location, Hepatitis C, Toll-Like Receptors Cascades

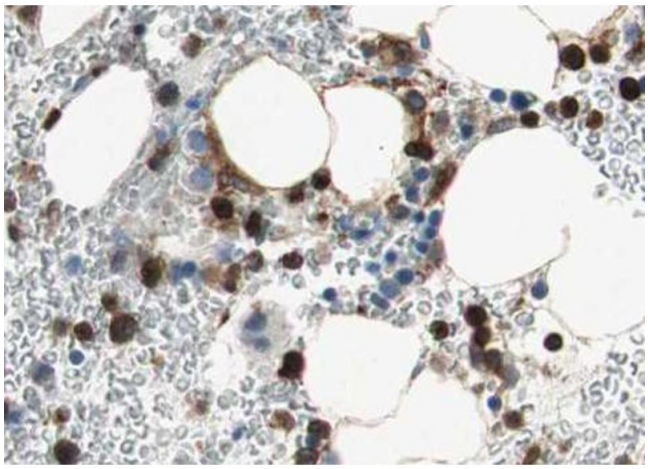
Application Details

Application Notes:	WB 1:500-1:2000 IHC 1:50-1:200 IF/ICC 1:100-1:500
Restrictions:	For Research Use only

Handling

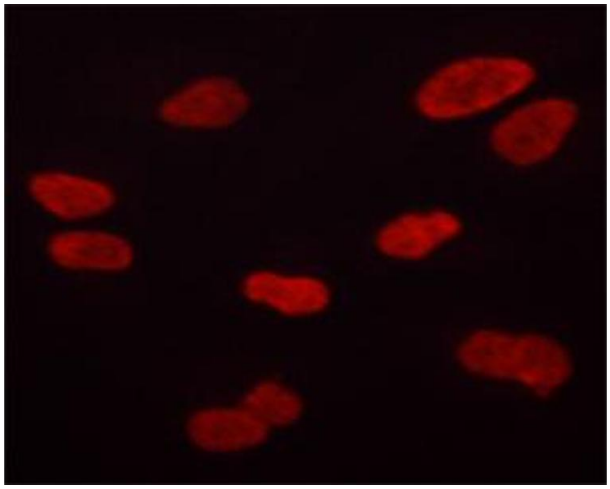
Format:	Liquid
Concentration:	1 mg/mL
Buffer:	Rabbit IgG in phosphate buffered saline , pH 7.4, 150 mM NaCl, 0.02 % sodium azide and 50 % glycerol.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Store at -20 °C.Stable for 12 months from date of receipt
Expiry Date:	12 months

Images



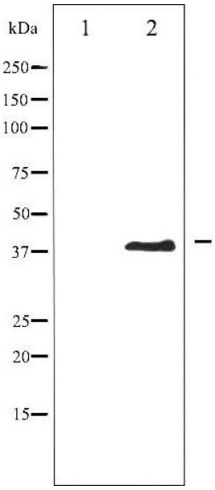
Immunohistochemistry

Image 1. ABIN6267684 at 1/100 staining human Bone marrow tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22°C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



Immunofluorescence (fixed cells)

Image 2. ABIN6267684 staining HT-1080 cells by ICC/IF. Cells were fixed with PFA and permeabilized in 0.1% saponin prior to blocking in 10% serum for 45 minutes at 37°C. The primary antibody was diluted 1/400 and incubated with the sample for 1 hour at 37°C. A Alexa Fluor 594 conjugated goat polyclonal to rabbit IgG (H+L), diluted 1/600 was used as secondary antibody.



Western Blotting

Image 3. Western blot analysis of AurB phosphorylation expression in Nocodazole treated COS7 whole cell lysates,The lane on the left is treated with the antigen-specific peptide.

Please check the product details page for more images. Overall 4 images are available for ABIN6256516.