abcam

Product datasheet

Anti-Aurora B (phospho S227) antibody [EPR20389] ab210706

Recombinant RabMAb

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Overview

Product name	Anti-Aurora B (phospho S227) antibody [EPR20389]
Description	Rabbit monoclonal [EPR20389] to Aurora B (phospho S227)
Host species	Rabbit
Tested applications	**Suitable for:** WB, Dot blot, ICC/IF, IP
Species reactivity	**Reacts with:** Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: HeLa treated with 100 ng/ml nocodazole for 18 hours, whole cell lysate. ICC/IF: HeLa cells. IP: HeLa treated with 100 ng/ml nocodazole for 18 hours, whole cell lysate.
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 0.05% BSA, 40% Glycerol (glycerin, glycerine), PBS
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR20389

Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab210706 in the following tested applications.

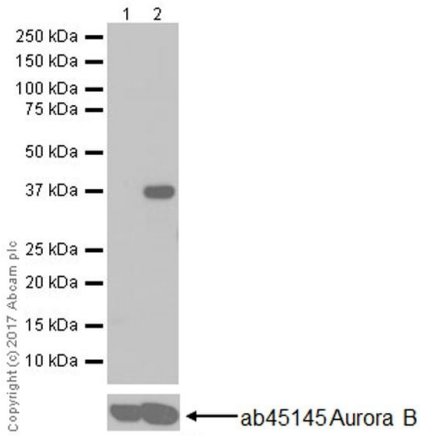
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/1000. Detects a band of approximately 39 kDa (predicted molecular weight: 39 kDa).
Dot blot		1/1000.
ICC/IF	★★★★☆ (1)	1/10000.
IP		1/30.

Target

Function	May be directly involved in regulating the cleavage of polar spindle microtubules and is a key regulator for the onset of cytokinesis during mitosis. 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. Phosphorylates 'Ser-10' and 'Ser-28' of histone H3 during mitosis. Required for kinetochore localization of BUB1 and SGOL1. Interacts with INCENP.
Tissue specificity	High level expression seen in the thymus. It is also expressed in the spleen, lung, testis, colon, placenta and fetal liver. Expressed during S and G2/M phase and expression is up-regulated in cancer cells during M phase.
Involvement in disease	Note=Disruptive regulation of expression is a possibile mechanism of the perturbation of chromosomal integrity in cancer cells through its dominant-negative effect on cytokinesis.
Sequence similarities	Belongs to the protein kinase superfamily. Ser/Thr protein kinase family. Aurora subfamily. Contains 1 protein kinase domain.
Post-translational modifications	Ubiquitinated by different BCR (BTB-CUL3-RBX1) E3 ubiquitin ligase complexes. Ubiquitinated by the BCR(KLHL9-KLHL13) E3 ubiquitin ligase complex, ubiquitination leads to removal from mitotic chromosomes and is required for cytokinesis. During anaphase, the BCR(KLHL21) E3 ubiquitin ligase complex recruits the CPC complex from chromosomes to the spindle midzone and mediates the ubiquitination of AURKB. Ubiquitination of AURKB by BCR(KLHL21) E3 ubiquitin ligase complex may not lead to its degradation by the proteasome.
Cellular localization	Nucleus. Chromosome. Chromosome > centromere. Cytoplasm > cytoskeleton > spindle. Localizes on chromosome arms and inner centromeres from prophase through metaphase and then transferring to the spindle midzone and midbody from anaphase through cytokinesis. Colocalized with gamma tubulin in the mid-body.

Images



Western blot - Anti-Aurora B (phospho S227) antibody [EPR20389] (ab210706)

All lanes : Anti-Aurora B (phospho S227) antibody [EPR20389] (ab210706) at 1/1000 dilution

Lane 1 : Untreated HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell lysate
Lane 2 : HeLa treated with 100 ng/ml nocodazole for 18 hours, whole cell lysate

Lysates/proteins at 10 µg per lane.

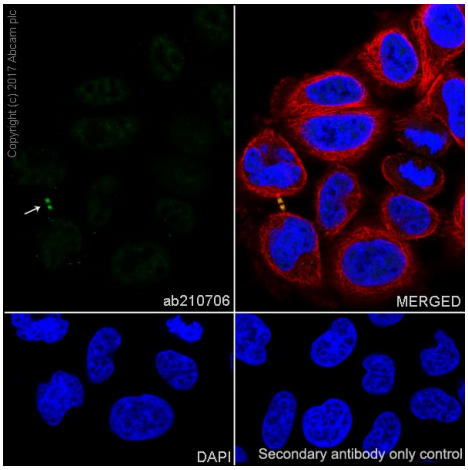
Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/100000 dilution

Developed using the ECL technique.

Predicted band size: 39 kDa

Exposure time: 3 minutes

Blocking/Dilution buffer: 5% NFDM/TBST.

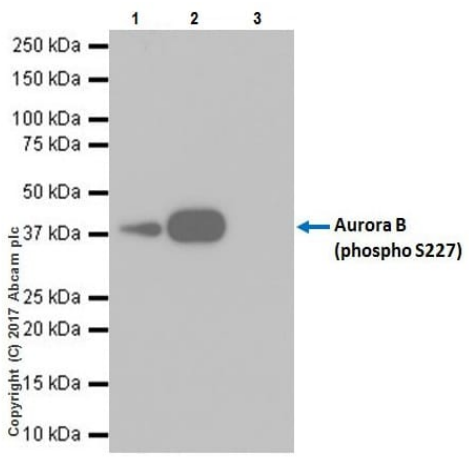


Immunocytochemistry/ Immunofluorescence - Anti-Aurora B (phospho S227) antibody [EPR20389] (ab210706)

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HeLa (human cervix adenocarcinoma epithelial cell) cells labeling Aurora B (phospho S227) with ab210706 at 1/10000 dilution, followed by Goat anti-rabbit IgG (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/1000 dilution (green). Confocal image showing midbody staining (arrow) on HeLa cell line.

The nuclear counterstain is DAPI (blue). Tubulin is detected with Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) (**ab195889**) (red) at 1/200 dilution.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/1000 dilution.



Immunoprecipitation - Anti-Aurora B (phospho S227) antibody [EPR20389] (ab210706)

Aurora B (phospho S227) was immunoprecipitated from 0.35 mg of HeLa (human epithelial cell line from cervix adenocarcinoma) treated with 100 ng/ml nocodazole for 18 hours whole cell lysate with ab210706 at 1/30 dilution. Western blot was performed from the immunoprecipitate using ab210706 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (**ab131366**), was used for detection at 1/10000 dilution.

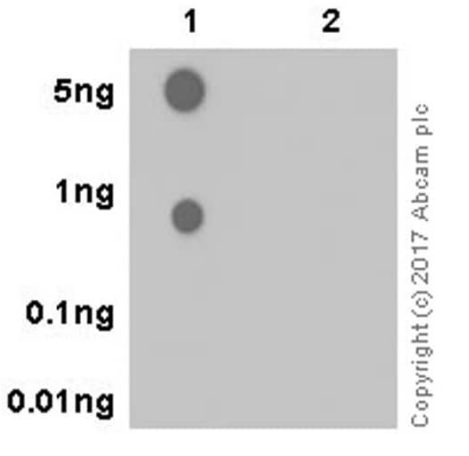
Lane 1: HeLa treated with 100 ng/ml nocodazole for 18 hours whole cell lysate 10µg (Input).

Lane 2: ab210706 IP in HeLa treated with 100 ng/ml nocodazole for 18 hours whole cell lysate.

Lane 3: Rabbit monoclonal IgG (**ab172730**) instead of ab210706 in HeLa treated with 100 ng/ml nocodazole for 18 hours whole cell lysate.

Blocking and dilution buffer: 5% NFDM/TBST.

Exposure time: 30 seconds



Dot Blot - Anti-Aurora B (phospho S227) antibody [EPR20389] (ab210706)

Dot blot analysis of Aurora B (phospho S227) labeled with ab210706 at 1/1000 dilution.

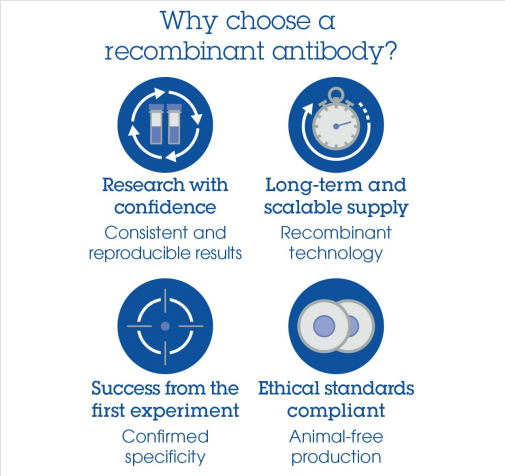
Lane 1: Aurora B (phospho S227) peptide.

Lane 2: Aurora B non-phospho peptide.

Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/100000 dilution was used as secondary antibody.

Blocking/Dilution buffer: 5% NFDM/TBST.

Exposure time: 3 minutes



Anti-Aurora B (phospho S227) antibody [EPR20389] (ab210706)

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