

## Product datasheet

# Anti-Aurora A antibody [EPR5026] - Centrosome Marker ab108353

Recombinant RabMAb

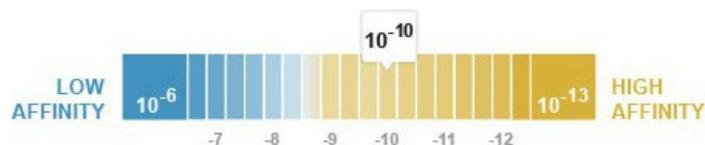
1 Abreviews 7 Images

### Overview

<b>Product name</b>	Anti-Aurora A antibody [EPR5026] - Centrosome Marker
<b>Description</b>	Rabbit monoclonal [EPR5026] to Aurora A - Centrosome Marker
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> WB, Flow Cyt, ICC/IF <b>Unsuitable for:</b> IHC-P or IP
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Human
<b>Immunogen</b>	Synthetic peptide within Human Aurora A. The exact sequence is proprietary.
<b>Positive control</b>	BXPC-3, LnCaP, SKBR-3 and HepG2 cell lysates. HeLa cells.
<b>General notes</b>	Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.  Our RabMAb <sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a> .  This product is a <a href="#">recombinant rabbit monoclonal antibody</a> .

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
<b>Dissociation constant (K<sub>D</sub>)</b>	K <sub>D</sub> = 2.63 x 10 <sup>-10</sup> M



[Learn more about K<sub>D</sub>](#)

<b>Storage buffer</b>	pH: 7.20 Preservative: 0.05% Sodium azide Constituents: 0.1% BSA, 40% Glycerol, 9.85% Tris glycine, 50% Tissue culture supernatant
<b>Purity</b>	Tissue culture supernatant

<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR5026
<b>Isotype</b>	IgG

## Applications

Our [Abpromise guarantee](#) covers the use of **ab108353** 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 - 1/10000. Predicted molecular weight: 46 kDa.
Flow Cyt		1/1000 - 1/10000. <a href="#">ab172730</a> - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
ICC/IF		1/100 - 1/250.

**Application notes**                      Is unsuitable for IHC-P or IP.

## Target

**Function**                                      Contributes to the regulation of cell cycle progression. Required for normal mitosis. Associates with the centrosome and the spindle microtubules during mitosis and functions in centrosome maturation, spindle assembly, maintenance of spindle bipolarity, centrosome separation and mitotic checkpoint control. Phosphorylates numerous target proteins, including ARHGEF2, BRCA1, KIF2A, NDEL1, PARD3, PLK1 and BORA. Regulates KIF2A tubulin depolymerase activity (By similarity). Required for normal axon formation. Plays a role in microtubule remodeling during neurite extension. Important for microtubule formation and/or stabilization.

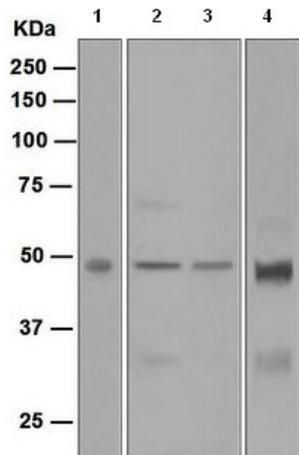
**Tissue specificity**                              Highly expressed in testis and weakly in skeletal muscle, thymus and spleen. Also highly expressed in colon, ovarian, prostate, neuroblastoma, breast and cervical cancer cell lines.

**Sequence similarities**                              Belongs to the protein kinase superfamily. Ser/Thr protein kinase family. Aurora subfamily. Contains 1 protein kinase domain.

**Post-translational modifications**                              Activated by phosphorylation at Thr-288; this brings about a change in the conformation of the activation segment. Phosphorylation at Thr-288 varies during the cell cycle and is highest during M phase. Autophosphorylated at Thr-288 upon TPX2 binding. Phosphorylated upon DNA damage, probably by ATM or ATR.  
Ubiquitinated by CHFR, leading to its degradation by the proteasome (By similarity).  
Ubiquitinated by the anaphase-promoting complex (APC), leading to its degradation by the proteasome.

**Cellular localization**                              Cytoplasm > cytoskeleton > centrosome. Cytoplasm > cytoskeleton > spindle pole. Detected at the neurite hillock in developing neurons (By similarity). Localizes on centrosomes in interphase cells and at each spindle pole in mitosis.

## Images



Western blot - Anti-Aurora A antibody [EPR5026] - Centrosome Marker (ab108353)

**All lanes :** Anti-Aurora A antibody [EPR5026] - Centrosome Marker (ab108353) at 1/1000 dilution

**Lane 1 :** BXPc-3 cell lysate

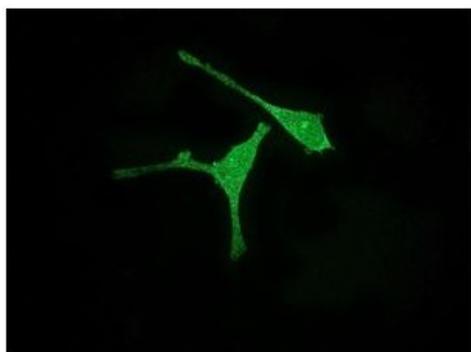
**Lane 2 :** LnCaP cell lysate

**Lane 3 :** SKBR-3 cell lysate

**Lane 4 :** HepG2 cell lysate

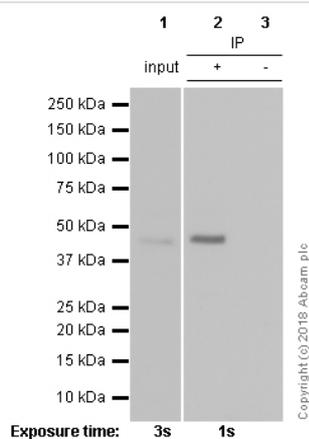
Lysates/proteins at 10 µg per lane.

**Predicted band size:** 46 kDa



Immunocytochemistry/ Immunofluorescence - Anti-Aurora A antibody [EPR5026] - Centrosome Marker (ab108353)

Immunofluorescent staining of HeLa cells using ab108353 at 1/100



Immunoprecipitation - Anti-Aurora A antibody [EPR5026] - Centrosome Marker (ab108353)

**Lane 1:** Neuro2a (Mouse neuroblastoma neuroblast) whole cell lysate, 10µg

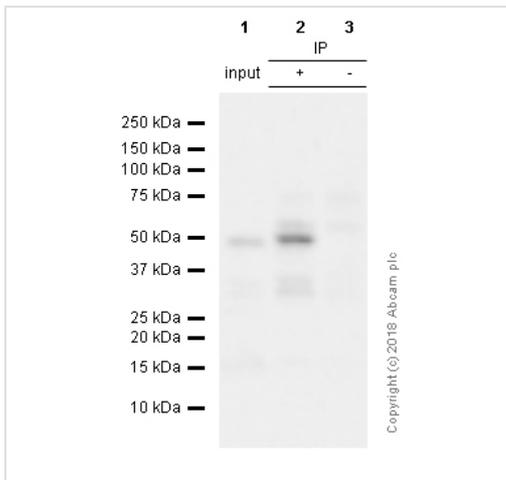
**Lane 2:** Neuro2a cell lysate 350µg and [ab109518](#) 2µg

**Lane 3:** Neuro2a cell lysate, 350µg and rabbit IgG ([ab172730](#)), 2µg

Purified ab108353 immunoprecipitating Aurora A in Neuro2a cell lysates. Primary antibody was used at a 1:500 dilution (2.2 µg/ml).

For western blotting, VeriBlot for IP Detection Reagent (HRP) ([ab131366](#)), was used for detection at 1/1000 dilution.

Blocking and diluting buffer used: 5% NFDm/TBST.



Immunoprecipitation - Anti-Aurora A antibody [EPR5026] - Centrosome Marker (ab108353)

**Lane 1:** HepG2 (Human hepatocellular carcinoma epithelial cell)

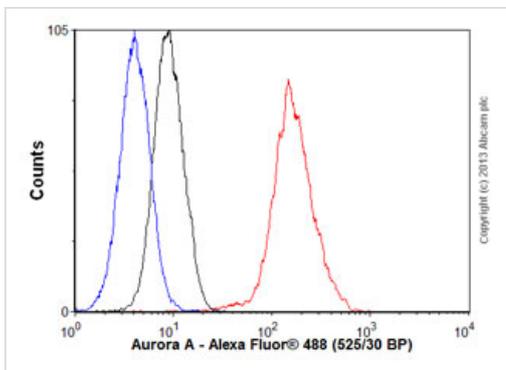
whole cell lysate 10µg

**Lane 2:** HepG2 cell lysate 350µg and [ab109518](#) 2µg

**Lane 3:** HepG2 cell lysate 350µg and rabbit IgG ([ab172730](#)) , 2µg

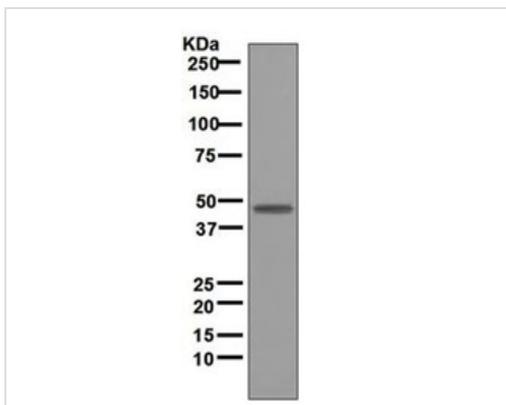
Purified ab108353 immunoprecipitating Aurora A in Neuro2a cell lysates. Primary antibody was used at a 1:500 dilution (2.2 µg/ml). For western blotting, VeriBlot for IP Detection Reagent (HRP) ([ab131366](#)), was used for detection at 1/1000 dilution.

Blocking and diluting buffer used: 5% NFDm/TBST.



Flow Cytometry - Anti-Aurora A antibody [EPR5026] - Centrosome Marker (ab108353)

Overlay histogram showing HeLa cells stained with ab108353 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab108353, 1/1000 dilution) for 30 min at 22°C. The secondary antibody used was Alexa Fluor® 488 goat anti-rabbit IgG (H&L) ([ab150077](#)) at 1/2000 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit IgG (monoclonal) (0.1µg/1x10<sup>6</sup> cells) used under the same conditions. Unlabelled sample (blue line) was also used as a control. Acquisition of >5,000 events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter.

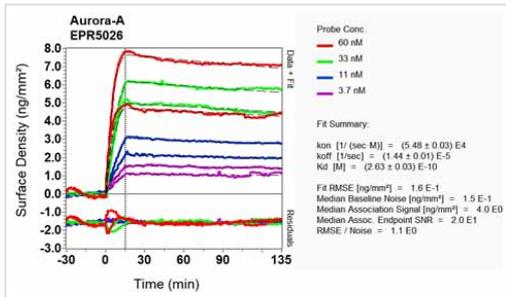


Western blot - Anti-Aurora A antibody [EPR5026] - Centrosome Marker (ab108353)

Anti-Aurora A antibody [EPR5026] - Centrosome Marker

(ab108353) at 1/1000 dilution + Neuro-2a cell lysate at 10 µg

**Predicted band size:** 46 kDa



Other - Anti-Aurora A antibody [EPR5026] -  
Centrosome Marker (ab108353)

Equilibrium disassociation constant ( $K_D$ )

Learn more about  $K_D$

[Click here to learn more about  \$K\_D\$](#)

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

### Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

### Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors