

## Product datasheet

# Anti-Aurora A antibody - Centrosome Marker ab12875

★★★★☆ 5 Abreviews 5 References 3 Images

### Overview

<b>Product name</b>	Anti-Aurora A antibody - Centrosome Marker
<b>Description</b>	Rabbit polyclonal to Aurora A - Centrosome Marker
<b>Host species</b>	Rabbit
<b>Specificity</b>	ab12875 detects a single clean band of just below 50kD in Jurkat and Hela cell lysates. This band corresponds to the size of Aurora A seen using other antibodies.
<b>Tested applications</b>	<b>Suitable for:</b> IHC-P, WB, ICC/IF, ICC
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	Synthetic peptide conjugated to KLH derived from within residues 50 - 150 of Human Aurora A. Read Abcam's proprietary immunogen policy (Peptide available as <a href="#">ab13008</a> .)
<b>Positive control</b>	Jurkat cell lysate.

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	Preservative: 0.02% Sodium Azide Constituents: 1% BSA, PBS, pH 7.4
<b>Purity</b>	Immunogen affinity purified
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

### Applications

Our [Abpromise guarantee](#) covers the use of **ab12875** 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
IHC-P	★★★★☆	

Application	Abreviews	Notes
WB	★★★★★	
ICC/IF	★★★☆☆	
ICC	★★★☆☆	

#### Application notes

ICC: 1/500.

IF: 1/500.

IHC-P: 1/15 - 1/20. Antigen retrieval was performed using either Sodium Citrate or Tris/EDTA before commencing with the IHC staining protocol. Customer feedback suggests that a 1/15 dilution of ab12875 is recommended when using the sodium citrate antigen retrieval method and a 1/20 dilution is recommended when using the Tris/EDTA antigen retrieval method.

WB: 1/500. Detects a band of approximately 46 kDa (predicted molecular weight: 46 kDa).

Not yet tested in other applications.

Optimal dilutions/concentrations should be determined by the end user.

#### 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.

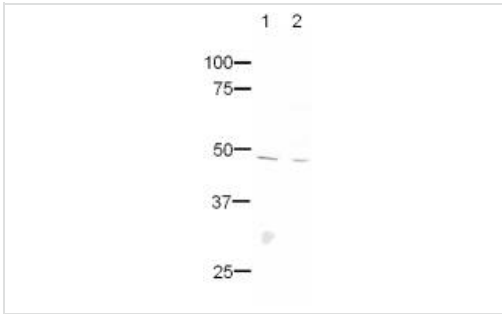
Ubiquitinated by CHFR, leading to its degradation by the proteasome (By similarity).

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 - Aurora A antibody (ab12875)

**All lanes :** Anti-Aurora A antibody -  
Centrosome Marker (ab12875) at 1/500  
dilution

**Lane 1 :** Jurkat whole cell lysate

**Lane 2 :** HeLa whole cell lysate

Lysates/proteins at 20 µg per lane.

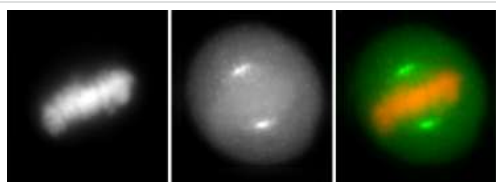
### Secondary

**All lanes :** Alexa Fluor 680 Goat anti Rabbit  
IgG at 1/5000 dilution

Performed under reducing conditions.

**Predicted band size:** 46 kDa

**Observed band size:** 48 kDa



Immunocytochemistry - Aurora A antibody

(ab12875)

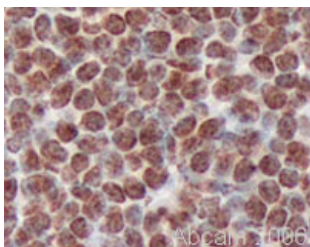
This image was submitted as part of a review by Kirk  
McManus, University of British Columbia

Metaphase HeLa cells stained with ab12875  
and counterstained with DAPI. The antibody  
shows the localisation of Aurora A to the  
centrosome during metaphase. 100x  
magnification.

Panel 1: DNA stained with DAPI.

Panel 2: Cells stained with ab12875 (1/500  
dilution).

Panel 3: DAPI staining is shown in red and  
ab12875 in green.



Immunohistochemistry (Formalin-fixed paraffin-  
embedded sections) - Aurora A antibody (ab12875)

The image shows staining of formalin fixed  
paraffin embedded human tonsil sections with  
ab12875 (1/20 working dilution). Clear nuclear  
staining can be seen.

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