abcam

Product datasheet

Anti-Aurora A antibody ab61114

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Overview

Product name	Anti-Aurora A antibody
Description	Rabbit polyclonal to Aurora A
Host species	Rabbit
Tested applications	**Suitable for:** IHC-P, WB
Species reactivity	**Reacts with:** Human **Predicted to work with:** Mouse, Rat
Immunogen	Synthetic non-phosphopeptide derived from human Aurora A around the phosphorylation site of threonine 288 (R-T-T^{P}-L-C).
Positive control	extracts from 293 cells treated with serum (20%, 15mins).
General notes	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituents: PBS, 50% Glycerol (glycerin, glycerine), 0.87% Sodium chloride Without Mg2+ and Ca2+
Purity	Immunogen affinity purified
Purification notes	ab61114 was affinity purified from rabbit antiserum by affinity chromatography using epitope specific immunogen.
Clonality	Polyclonal

Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab61114 in the following tested applications.

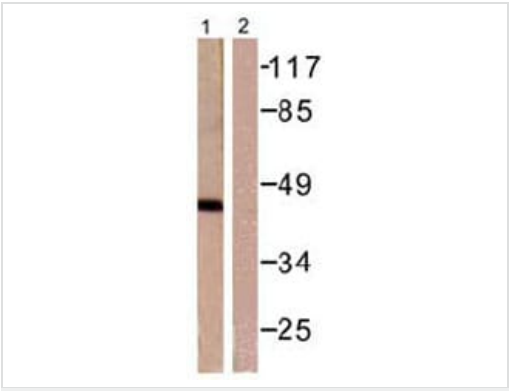
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-P	★★★★☆ (1)	Use a concentration of 4 µg/ml.
WB	★★★★☆ (1)	1/500 - 1/1000. Detects a band of approximately 45 kDa (predicted molecular weight: 46 kDa).

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 (ab61114)

All lanes : Anti-Aurora A antibody (ab61114) at 1/500 dilution

Lane 1 : Extracts from 293 cells treated with serum (20%, 15mins)
Lane 2 : Extracts from 293 cells treated with serum (20%, 15mins) with immunising Aurora A peptide

Predicted band size: 46 kDa
Observed band size: 45 kDa

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Aurora A antibody (ab61114)

ab61114 staining Aurora A in human ovarian carcinoma.
Left panel: with primary antibody at 4 ug/ml. Right panel: isotype control.
Sections were stained using an automated system (DAKO Autostainer Plus), at room temperature: sections were rehydrated and antigen retrieved with the Dako 3 in 1 AR buffers citrate pH6.1 in a DAKO PT link. Slides were peroxidase blocked in 3% H2O2 in methanol for 10 mins. They were then blocked with Dako Protein block for 10 minutes (containing casein 0.25% in PBS) then incubated with primary antibody for 20 min and detected with Dako envision flex amplification kit for 30 minutes. Colorimetric detection was completed with Diaminobenzidine for 5 minutes. Slides were counterstained with Haematoxylin and coverslipped under DePeX. Please note that for manual staining we recommend to optimize the primary antibody concentration and incubation time (overnight incubation), and amplification may be required.

- 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