abcam

Product datasheet

Anti-Aurora A antibody [EP1008Y] ab52973

Recombinant RabMAb

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Overview

Product name	Anti-Aurora A antibody [EP1008Y]
Description	Rabbit monoclonal [EP1008Y] to Aurora A
Host species	Rabbit
Tested applications	**Suitable for:** WB, IP, IHC-P **Unsuitable for:** Flow Cyt or ICC/IF
Species reactivity	**Reacts with:** Human
Immunogen	Synthetic peptide within Human Aurora A aa 350-450 (C terminal). The exact sequence is proprietary.
Positive control	HepG2 nuclear cell lysate Human cervical carcinoma tissue IP: HepG2 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**. Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

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. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.20 Preservative: 0.05% Sodium azide Constituents: 0.1% BSA, 40% Glycerol (glycerin, glycerine), 9.85% Tris glycine, 50% Tissue culture supernatant
Purity	Protein A purified

Clonality	Monoclonal
Clone number	EP1008Y
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab52973 in the following tested applications.

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

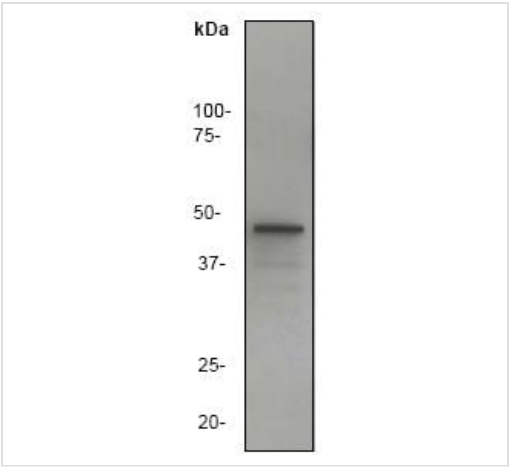
Application	Abreviews	Notes
WB	★★★★☆ (1)	1/50000. Detects a band of approximately 46 kDa (predicted molecular weight: 46 kDa).
IP		1/50.
IHC-P		1/100 - 1/250. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

Application notes Is unsuitable for Flow Cyt or ICC/IF.

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 [EP1008Y] (ab52973)

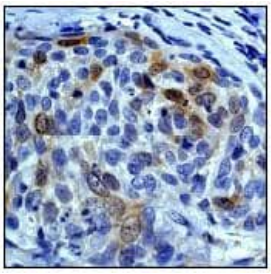
Anti-Aurora A antibody [EP1008Y] (ab52973) at 1/50000 dilution + HepG2 (Human liver hepatocellular carcinoma cell line) cell lysate at 10 µg

Secondary

Goat anti-rabbit HRP at 1/2000 dilution

Predicted band size: 46 kDa

Observed band size: 46 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Aurora A antibody [EP1008Y] (ab52973)

Formalin-fixed, paraffin-embedded human cervical carcinoma tissue stained for Aurora A with ab52973 (1/100 dilution) in immunohistochemical analysis. Inset panel is a larger magnification of the image.

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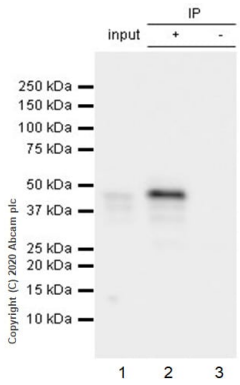
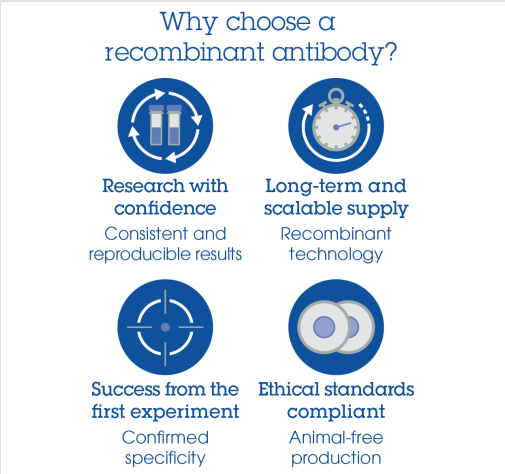
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunoprecipitation - Anti-Aurora A antibody [EP1008Y] (ab52973)

Purified ab52973 at 1/50 dilution (2µg) immunoprecipitating Aurora A in HepG2 whole cell lysate.
Lane 1 (input): HepG2 (Human hepatocellular carcinoma epithelial cell) whole cell lysate 10µg
Lane 2 (+): ab52973 + HepG2 whole cell lysate.
Lane 3 (-): Rabbit monoclonal IgG (**ab172730**) instead of ab52973 in HepG2 whole cell lysate.
VeriBlot for IP Detection Reagent (HRP) (**ab131366**) (1/1000 dilution) was used for Western blotting.
Blocking Buffer and concentration: 5% NFDM/TBST.
Diluting buffer and concentration: 5% NFDM/TBST.
Observed band size: 46 kDa



Anti-Aurora A antibody [EP1008Y] (ab52973)

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