abcam

ab324635

Anti-Aurora kinase A (phospho T288) antibody [EPR28759-80]

Recombinant | RabMAb | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogens	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR28759-80
Purification technique	Affinity purification Protein A
Concentration	0.495 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Tested

Species	Transfected cell line - Human
Dilution info	1/5000
Notes	-

Species	Human
Dilution info	1/5000
Notes	-

Species	Mouse
Dilution info	1/5000
Notes	-

Species	Rat
Dilution info	1/5000
Notes	-

Not recommended

Species	Synthetic peptide - Human
Dilution info	-
Notes	-

Dot

Tested

Species	Synthetic peptide - Human
Dilution info	1/1000
Notes	-

Expected

Species	Human, Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Not recommended

Species	Transfected cell line - Human
Dilution info	-

Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/500
Notes	-

Species	Mouse
Dilution info	1/5000
Notes	-

Species	Rat
Dilution info	1/50
Notes	-

Not recommended

Species	Transfected cell line - Human, Synthetic peptide - Human
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Mouse, Rat, Human, Transfected cell line - Human, Synthetic peptide - Human
Dilution info	-
Notes	-

WB

Not recommended

Species	Human, Mouse, Rat, Transfected cell line - Human, Synthetic peptide - Human

Dilution info	-
Notes	-

Target data

See full target information AURKA pT288

Function	Mitotic serine/threonine kinase that contributes to the regulation of cell cycle progression (PubMed:11039908, PubMed:12390251, PubMed:17125279, PubMed:17360485, PubMed:18615013, PubMed:26246606). Associates with the centrosome and the spindle microtubules during mitosis and plays a critical role in various mitotic events including the establishment of mitotic spindle, centrosome duplication, centrosome separation as well as maturation, chromosomal alignment, spindle assembly checkpoint, and cytokinesis (PubMed:14523000, PubMed:26246606). Required for normal spindle positioning during mitosis and for the localization of NUMA1 and DCTN1 to the cell cortex during metaphase (PubMed:27335426). Required for initial activation of CDK1 at centrosomes (PubMed:13678582, PubMed:15128871). Phosphorylates numerous target proteins, including ARHGEF2, BORA, BRCA1, CDC25B, DLGP5, HDAC6, KIF2A, LATS2, NDEL1, PARD3, PPP1R2, PLK1, RASSF1, TACC3, p53/TP53 and TPX2 (PubMed:11551964, PubMed:14702041, PubMed:15128871, PubMed:15147269, PubMed:15987997, PubMed:17604723, PubMed:18056443, PubMed:18615013). Phosphorylates MCRS1 which is required for MCRS1-mediated kinetochore fiber assembly and mitotic progression (PubMed:27192185). Regulates KIF2A tubulin depolymerase activity (PubMed:19351716). Important for microtubule formation and/or stabilization (PubMed:18056443). Required for normal axon formation (PubMed:19812038). Plays a role in microtubule remodeling during neurite extension (PubMed:19668197). Also acts as a key regulatory component of the p53/TP53 pathway, and particularly the checkpoint-response pathways critical for oncogenic transformation of cells, by phosphorylating and destabilizing p53/TP53 (PubMed:14702041). Phosphorylates its own inhibitors, the protein phosphatase type 1 (PP1) isoforms, to inhibit their activity (PubMed:11551964). Inhibits cilia outgrowth (By similarity). Required for cilia disassembly via phosphorylation of HDAC6 and subsequent deacetylation of alpha-tubulin (PubMed:17604723, PubMed:20643351). Regulates protein levels of the anti-apoptosis protein BIRC5 by suppressing the expression of the SCF(FBXL7) E3 ubiquitin-protein ligase substrate adapter FBXL7 through the phosphorylation of the transcription factor FOXP1 (PubMed:28218735).

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C

Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
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 batch production

For more information, read more on recombinant antibodies.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

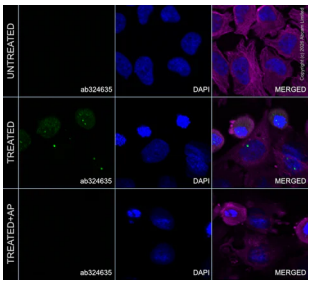
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

10 product images



Immunocytochemistry/ Immunofluorescence - Anti-Aurora kinase A (phospho T288) antibody [EPR28759-80] (ab324635)

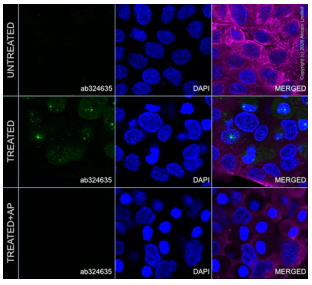
Aurora kinase A (phospho T288) Immunocytochemistry/ Immunofluorescence staining of HeLa treated with 400 ng/ml Nocodazole for 20 hours using rabbit Anti-Aurora kinase A (phospho T288) antibody

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized HeLa (human cervical adenocarcinoma epithelial cell) untreated HeLa treated with 400 ng/ml Nocodazole for 20 hours HeLa treated with 400 ng/ml Nocodazole for 20 hours then treated with λ protein phosphatase treatment cells labelling Aurora kinase A (phospho T288) with ab324635 at 1/5000 (0.096 µg/ml) dilution , followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 dilution (Green).

Confocal image showing positive staining in HeLa cells (shown in green) treated with 400 ng/ml nocodazole for 20 hours, the signal decreased after λ Protein phosphatase treatment at 30☒ for 2 hours . The counterstain was observed in magenta. Nuclear DNA was labelled with DAPI (shown in blue). Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

ab195889 Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 dilution (Magenta). The Nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Secondary antibody is ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution.



Immunocytochemistry/ Immunofluorescence - Anti-Aurora kinase A (phospho T288) antibody [EPR28759-80] (ab324635)

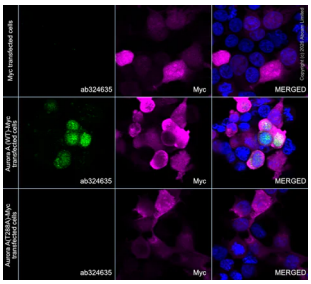
Aurora kinase A (phospho T288) Immunocytochemistry/ Immunofluorescence staining of A431 treated with 400 ng/ml Nocodazole for 20 hours using rabbit Anti-Aurora kinase A (phospho T288) antibody

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized A431 (human epidermoid carcinoma epithelial cell) untreated A431 treated with 400 ng/ml Nocodazole for 20 hours A431treated with 400 ng/ml Nocodazole for 20 hours then treated with λ protein phosphatase treatment cells labelling Aurora kinase A (phospho T288) with ab324635 at 1/5000 (0.096 µg/ml) dilution , followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 dilution (Green).

Confocal image showing positive staining in A431 cells (shown in green) treated with 400 ng/ml nocodazole for 20 hours, the signal decreased after λ Protein phosphatase treatment at 30☒ for 2 hours. The counterstain was observed in magenta. Nuclear DNA was labelled with DAPI (shown in blue). Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

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Immunocytochemistry/ Immunofluorescence - Anti-Aurora kinase A (phospho T288) antibody [EPR28759-80] (ab324635)

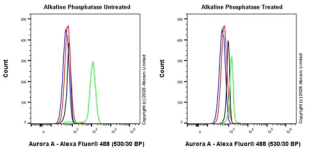
Aurora kinase A (phospho T288) Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Aurora kinase A (phospho T288) antibody

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized 293T (human embryonic kidney epithelial cell) cells transfected with an empty expression vector containing a myc-His-tag® 293T cells transfected with a human Aurora A (T288A) expression vector containing a myc-His-tag® 293T cells transfected with a human Aurora A (WT) expression vector containing a myc-His-tag® cells labelling Aurora kinase A (phospho T288) with ab324635 at 1/5000 (0.096 µg/ml) dilution , followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 dilution (Green).

Confocal image showing positive staining in 293T cells (shown in green) transfected with a human Aurora A (WT) expression vector containing a myc-His-tag®.In contrast, no staining is observed in cells transfected with either the human Aurora A (T288A) mutant or an empty expression vector containing the same myc-His-tag®. The counterstain was observed in magenta. Nuclear DNA was labelled with DAPI (shown in blue). Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

ab223894 Anti-Myc tag mouse monoclonal antibody (Alexa Fluor® 594) was used to counterstain tubulin at 1/100 dilution (Magenta). The Nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Secondary antibody is ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution.



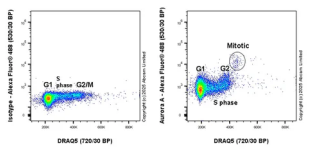
Flow Cytometry (Intracellular) - Anti-Aurora kinase A (phospho T288) antibody [EPR28759-80] (ab324635)

Aurora kinase A (phospho T288) Flow Cytometry (Intracellular) staining using rabbit Anti-Aurora kinase A (phospho T288) antibody

Flow cytometric analysis of 4% paraformaldehyde fixed 0.1% Tween-20 permeabilized HeLa (human cervical adenocarcinoma epithelial cell) treated with 400 ng/ml nocodazole for 20 hours (Green) Untreated control (Magenta) cells labelling Aurora kinase A (phospho T288) with ab324635 at 1/500 dilution (0.1ug) / Magenta and Green compared with a Rabbit monoclonal IgG (ab172730) / Black and Grey isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody).

Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/5000 dilution was used as the secondary antibody.

Cells were treated with alkaline phosphatase over night (Right) / Untreated cells (Left)



Flow Cytometry (Intracellular) - Anti-Aurora kinase A (phospho T288) antibody [EPR28759-80] (ab324635)

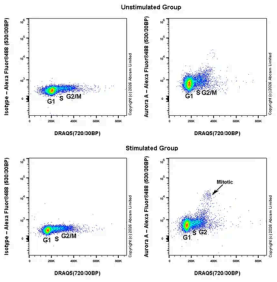
Aurora kinase A (phospho T288) Flow Cytometry (Intracellular) staining of HeLa (human cervical adenocarcinoma epithelial cell) using rabbit Anti-Aurora kinase A (phospho T288) antibody

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized HeLa (human cervical adenocarcinoma epithelial cell) cells labelling Aurora kinase A (phospho T288) with ab324635 at 1/500 dilution (0.1ug) / Right compared with a Rabbit monoclonal IgG

(ab172730) / Left isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody).

Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/5000 dilution was used as the secondary antibody.

Cells were co-stained with DRAQ5 to differentiate cell cycle phase.



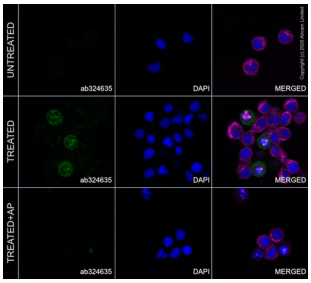
Flow Cytometry (Intracellular) - Anti-Aurora kinase A (phospho T288) antibody [EPR28759-80] (ab324635)

Aurora kinase A (phospho T288) Flow Cytometry (Intracellular) staining using rabbit Anti-Aurora kinase A (phospho T288) antibody

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized L-929 (mouse connective tissue fibroblast) treated with 100 ng/mL Nocodazole for 14hours (Lower left and right) Untreated L-929 (Upper left and right) cells labelling Aurora kinase A (phospho T288) with ab324635 at 1/5000 dilution (0.01ug) / Upper right and Lower right compared with a Rabbit monoclonal IgG (ab172730) / Left isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody).

Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/5000 dilution was used as the secondary antibody.

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Immunocytochemistry/ Immunofluorescence - Anti-Aurora kinase A (phospho T288) antibody [EPR28759-80] (ab324635)

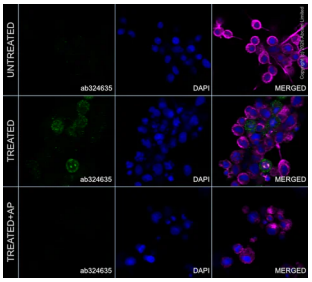
Aurora kinase A (phospho T288) Immunocytochemistry/ Immunofluorescence staining of L-929 treated with 100 ng/ml Nocodazole for 14 hours using rabbit Anti-Aurora kinase A (phospho T288) antibody

Immunofluorescent analysis of 100% methanol-fixed, 0.1% TritonX-100 permeabilized L-929 (mouse connective tissue fibroblast) untreated L-929 treated with 100 ng/ml Nocodazole for 14 hours L-929 treated with 100 ng/ml Nocodazole for 14 hours then treated with Alkaline phosphatase treatment cells labelling Aurora kinase A (phospho T288) with ab324635 at 1/5000 (0.096 µg/ml) dilution , followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 dilution (Green).

Confocal image showing positive staining in L-929 cells (shown in green) treated with 100 ng/ml nocodazole for 14 hours, the signal decreased after Alkaline phosphatase treatment at 37☒ for 2 hours. The counterstain was observed in magenta. Nuclear DNA was labelled with DAPI (shown in blue). Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

ab195889 Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 dilution (Magenta). The Nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Secondary antibody is ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution.



Immunocytochemistry/ Immunofluorescence - Anti-Aurora kinase A (phospho T288) antibody [EPR28759-80] (ab324635)

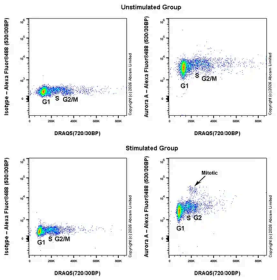
Aurora kinase A (phospho T288) Immunocytochemistry/ Immunofluorescence staining of C6 treated with 100 ng/ml Nocodazole for 14 hours using rabbit Anti-Aurora kinase A (phospho T288) antibody

Immunofluorescent analysis of 100% methanol-fixed, 0.1% TritonX-100 permeabilized C6 (rat glial tumor glial cell) untreated C6 treated with 100 ng/ml Nocodazole for 14 hours C6 treated with 100 ng/ml Nocodazole for 14 hours then treated with Alkaline phosphatase treatment cells labelling Aurora kinase A (phospho T288) with ab324635 at 1/5000 (0.096 µg/ml) dilution , followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 dilution (Green).

Confocal image showing positive staining in C6 cells (shown in green) treated with 100 ng/ml nocodazole for 14 hours, the signal decreased after Alkaline phosphatase treatment at 37☒ for 2 hours. The counterstain was observed in magenta. Nuclear DNA was labelled with DAPI (shown in blue). Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

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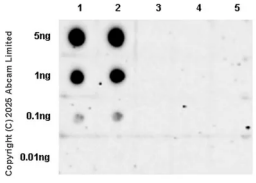
Flow Cytometry (Intracellular) - Anti-Aurora kinase A (phospho T288) antibody [EPR28759-80] (ab324635)

Aurora kinase A (phospho T288) Flow Cytometry (Intracellular) staining using rabbit Anti-Aurora kinase A (phospho T288) antibody

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized C6 (rat glial tumor glial cell) treated with 100 ng/mL Nocodazole for 14hours (Lower left and right) Untreated C6 (Upper left and right) cells labelling Aurora kinase A (phospho T288) with ab324635 at 1/50 dilution (1ug) / Upper right and Lower right compared with a Rabbit monoclonal IgG (ab172730) / Left isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody).

Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/5000 dilution was used as the secondary antibody.

Cells were co-stained with DRAQ5 to differentiate cell cycle phase.



Dot Blot - Anti-Aurora kinase A (phospho T288) antibody [EPR28759-80] (ab324635)

Aurora kinase A (phospho T288) Dot Blot staining using rabbit Anti-Aurora kinase A (phospho T288) antibody

Dot blot analysis of Aurora kinase A (phospho T288) using ab324635 at 1000 (0.48 µg/ml) followed by a Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ab97051) at 1:100,000 dilution.

Lane 1: Aurora kinase A (phospho T288) peptide a

Lane 2: Aurora kinase A (phospho T288) peptide b

Lane 3: Aurora kinase A non-phospho peptide c

Lane 4: Aurora kinase A (phospho T287) peptide d

Lane 5: Aurora kinase A (phospho T232) peptide e

Exposure time: 180 seconds.

Blocking and diluting buffer and concentration: 5% NFDM/TBST.
All lanes:
Dot Blot - Anti-Aurora kinase A (phospho T288) antibody [EPR28759-80] (ab324635) at 1/1000 dilution

Lane 1:
Aurora kinase A (phospho T288) peptide a

Lane 2:
Aurora kinase A (phospho T288) peptide b

Lane 3:
Aurora kinase A non-phospho peptide c

Lane 4:
Aurora kinase A (phospho T287) peptide d

Lane 5:
Aurora kinase A (phospho T232) peptide e

Secondary

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

Exposure time: 180s

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.