Product Datasheet

Aurora A Antibody - BSA Free
NBP1-51843

Unit Size: 0.1 ml

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

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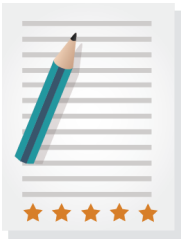
Updated 4/13/2025 v.20.1



NBP1-51843

Aurora A Antibody - BSA Free

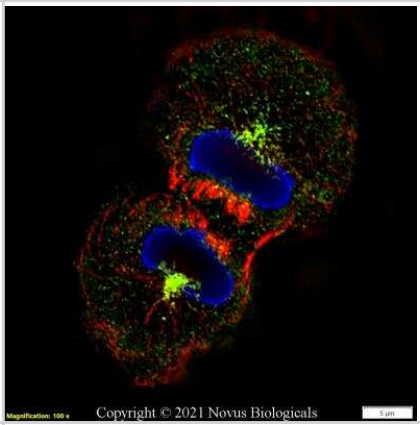
Product Information	
Unit Size	0.1 ml
Concentration	1.0 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.05% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	PBS

Product Description	
Host	Rabbit
Gene ID	6790
Gene Symbol	AURKA
Species	Human, Mouse
Marker	Mitosis Marker
Immunogen	A recombinant protein made to an N-terminal region of the human Aurora A protein (within residues 50-200). [Swiss-Prot O14965]

Product Application Details	
Applications	Western Blot, Simple Western, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin
Recommended Dilutions	Western Blot 1 - 2 ug/ml, Simple Western 1:200, Immunohistochemistry 1:200, Immunocytochemistry/ Immunofluorescence 2 ug/ml, Immunohistochemistry-Paraffin 1:200
Application Notes	This AURKA antibody is useful for Immunohistochemistry and Western blot, where a band is seen ~45 kDa. Prior to immunostaining paraffin tissues, antigen retrieval with sodium citrate buffer (pH 6.0) is recommended. In Simple Western only 10 - 15 uL of the recommended dilution is used per data point. See Simple Western Antibody Database for Simple Western validation: Tested in HeLa lysate 0.5 mg/mL, separated by Size, antibody dilution of 1:200, apparent MW was 56 kDa. Separated by Size-Wes, Sally Sue/Peggy Sue.

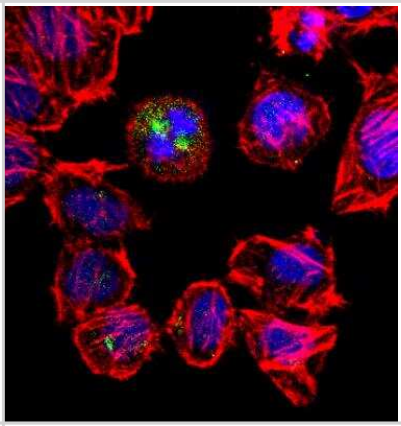
Images

Immunocytochemistry/Immunofluorescence: Aurora A Antibody [NBP1-51843] - HeLa cells were fixed and permeabilized for 10 minutes using -20C MeOH. The cells were incubated with anti- (NBP1-51843) at 2 ug/ml overnight at 4C and detected with an anti-rabbit Dylight 488 (Green) at a 1:1000 dilution for 60 minutes. Alpha tubulin (DM1A) NB100-690 was used as a co-stain at a 1:1000 dilution overnight at 4C and detected with an anti-mouse Dylight 550 (Red) at a 1:1000 dilution for 60 minutes. Nuclei were counterstained with DAPI (Blue). Cells were imaged using a 100X objective and digitally deconvolved.

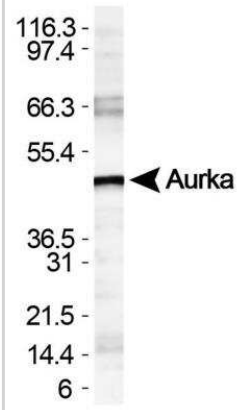


Simple Western: Aurora A Antibody [NBP1-51843] - Simple Western lane view shows a specific band for Aurora A in 0.5 mg/ml of HeLa lysate. This experiment was performed under reducing conditions using the 12-230kDa separation system.

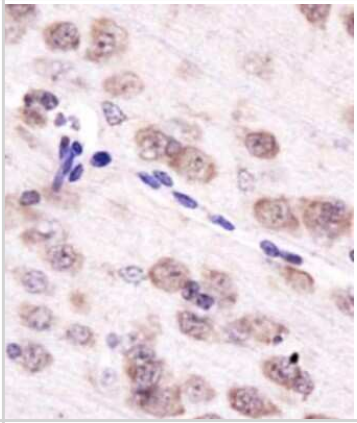
Immunocytochemistry/Immunofluorescence: Aurora A Antibody [NBP1-51843] - IF Confocal analysis of HeLa cells using Aurora A antibody (NBP1-51843, 1:10). An Alexa Fluor 488-conjugated Goat to rabbit IgG was used as secondary antibody (green). Actin filaments were labeled with Alexa Fluor 568 phalloidin (red). DAPI was used to stain the cell nuclei (blue).



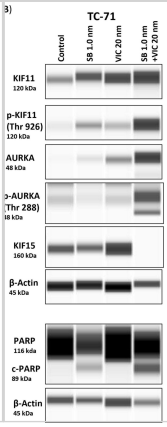
Western Blot: Aurora A Antibody [NBP1-51843] - WB detection of Aurora A in HeLa whole cell lysate.



Immunohistochemistry: Aurora A Antibody [NBP1-51843] - IHC staining of Aurora A in mouse brain.



Simple Western: Aurora A Antibody - BSA Free [NBP1-51843] - Analysis of protein expression post-drug treatment. (A) CHLA-10 and (B) TC-71 cells treated with drugs were assessed for changes in protein expression 24 h post-treatment via capillary electrophoresis-based Wes analysis. Increased protein levels of KIF11, p-KIF11Thr926 AURKA, and p-AURKAThr288 were observed for the drug combination group, whereas KIF15 levels were noticeably lower. Similarly, enhanced cleaved-PARP expression was observed with the combination treatment. The uncropped blots are shown in Figures S8 and S9. Image collected and cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/37894278), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Turaga SM, Vishwakarma V, Hembruff SL et al. Inducing Mitotic Catastrophe as a Therapeutic Approach to Improve Outcomes in Ewing Sarcoma Cancers 2023-10-10 [PMID: 37894278] (Simple Western, Human)

Sikorski K, Mehta A et al. A high-throughput pipeline for validation of antibodies. Nat Methods 2018-01-11 [PMID: 30377371] (Human)

Details:
Antibody validation based on denaturing gel electrophoresis of biotinylated cell lysates (PAGE) followed by mass spectrometry (MS) and antibody array analysis (MAP).

Drpic Danica, Almeida Ana C, Aguiar Paulo et al. Chromosome Segregation Is Biased by Kinetochore Size. Current Biology : Cb 2018-01-01 [PMID: 29706521] (WB, Human)

Gasca J, Flores ML, Giraldez S et al. Loss of FBXW7 and accumulation of MCL1 and PLK1 promote paclitaxel resistance in breast cancer. Oncotarget. 2016-07-07 [PMID: 27409838] (WB)

Flores ML, Castilla C, Gasca J, Medina R. Loss of PKCdelta induces prostate cancer resistance to paclitaxel through activation of Wnt/beta-Catenin pathway and Mcl-1 accumulation. Molecular Cancer Therapeutics. 2016-04-13 [PMID: 27196755] (IF/IHC, Human)

Casorzo L, Dell'Aglio C, Sarotto I, Risio M. Aurora kinase A gene copy number is associated with the malignant transformation of colorectal adenomas but not with the serrated neoplasia progression Hum. Pathol. 2015-03-01 [PMID: 25596657] (IHC-P, Human)

Honma K, Nakanishi R, Nakanoko T et al. Contribution of Aurora-A and -B expression to DNA aneuploidy in gastric cancers Surg Today 2013-04-10 [PMID: 23572383] (IHC-P, Human)

Procedures

Western Blot protocol for Aurora A Antibody (NBP1-51843)
Aurora A Antibody:
Western Blot Protocol

1. Perform SDS-PAGE on samples to be analyzed, loading 40 ug of total protein per lane.
2. Transfer proteins to membrane according to the instructions provided by the manufacturer of the membrane and transfer apparatus.
3. Stain according to standard Ponceau S procedure (or similar product) to assess transfer success, and mark molecular weight standards where appropriate.
4. Rinse the blot.
5. Block the membrane using standard blocking buffer for at least 1 hour.
6. Wash the membrane in wash buffer three times for 10 minutes each.
7. Dilute primary antibody in blocking buffer and incubate 1 hour at room temperature.
8. Wash the membrane in wash buffer three times for 10 minutes each.
9. Apply the diluted HRP conjugated secondary antibody in blocking buffer (as per manufacturers instructions) and incubate 1 hour at room temperature.
10. Wash the blot in wash buffer three times for 10 minutes each (this step can be repeated as required to reduce background).
11. Apply the detection reagent of choice in accordance with the manufacturers instructions.

*Note: Tween-20 can be added to the blocking or antibody dilution buffer at a final concentration of 0.05-0.2%.

Immunohistochemistry-Paraffin protocol for Aurora A Antibody (NBP1-51843)
Aurora A Antibody:
Immunohistochemistry-Paraffin Embedded Sections

Antigen Unmasking:
Bring slides to a boil in 10 mM sodium citrate buffer (pH 6.0) then maintain at a sub-boiling temperature for 10 minutes. Cool slides on bench-top for 30 minutes.

Staining:
1. Wash sections in deionized water three times for 5 minutes each.
2. Wash sections in wash buffer for 5 minutes.
3. Block each section with 100-400 ul blocking solution for 1 hour at room temperature.
4. Remove blocking solution and add 100-400 ul diluted primary antibody. Incubate overnight at 4C.
5. Remove antibody solution and wash sections in wash buffer three times for 5 minutes each.
6. Add 100-400 ul biotinylated diluted secondary antibody. Incubate 30 minutes at room temperature.
7. Remove secondary antibody solution and wash sections three times with wash buffer for 5 minutes each.
8. Add 100-400 ul Streptavidin-HRP reagent to each section and incubate for 30 minutes at room temperature.
9. Wash sections three times in wash buffer for 5 minutes each.
10. Add 100-400 ul DAB substrate to each section and monitor staining closely.
11. As soon as the sections develop, immerse slides in deionized water.
12. Counterstain sections in hematoxylin.
13. Wash sections in deionized water two times for 5 minutes each.
14. Dehydrate sections.
15. Mount coverslips.

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Products Related to NBP1-51843

NB800-PC1	HeLa Whole Cell Lysate
HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control

Limitations

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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