

Product Datasheet

NuMA Antibody NB500-174

Unit Size: 0.1 ml

Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.

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Updated 2/17/2025 v.20.1

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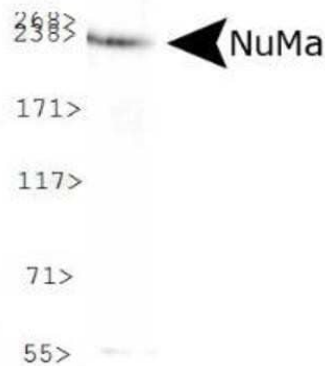
NB500-174

NuMA Antibody

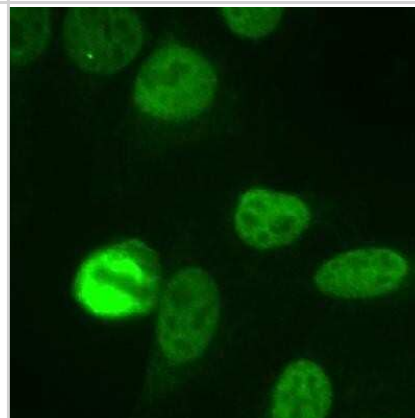
Product Information	
Unit Size	0.1 ml
Concentration	This product is unpurified. The exact concentration of antibody is not quantifiable.
Storage	Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.02% Sodium Azide
Isotype	IgG
Purity	Unpurified
Buffer	Whole antisera
Product Description	
Host	Rabbit
Gene ID	4926
Gene Symbol	NUMA1
Species	Human, Mouse, Rat, Mammal, Marsupial, Primate
Reactivity Notes	Use in Marsupial reported in scientific literature (PMID:29185983).
Immunogen	Full-length recombinant human NuMA expressed in insect Sf9 cells using baculovirus expression system, then purified to near homogeneity prior to immunization.
Product Application Details	
Applications	Western Blot, Simple Western, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin, Immunoprecipitation
Recommended Dilutions	Western Blot 1:1000, Simple Western 1:500, Immunohistochemistry 5 ug/ml, Immunocytochemistry/ Immunofluorescence 1:500, Immunoprecipitation 1:10-1:500, Immunohistochemistry-Paraffin 5 ug/ml, Immunohistochemistry-Frozen reported in scientific literature
Application Notes	In Western blot a band can be seen at 220 kDa. 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 0.2 mg/mL, separated by Size, antibody dilution of 1:500. Separated by Size-Wes, Sally Sue/Peggy Sue.

Images

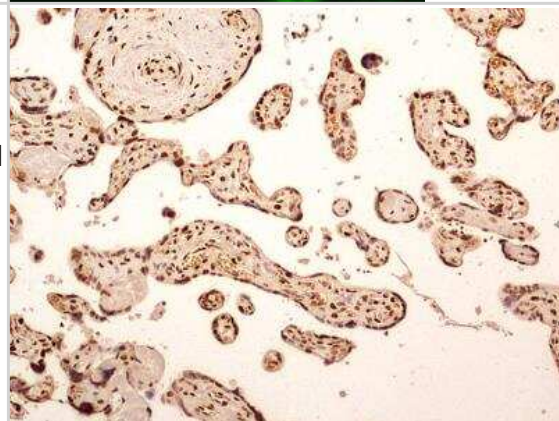
Western Blot: NuMA Antibody [NB500-174] - Analysis of NuMA expression in Cos7 whole cell lysate.



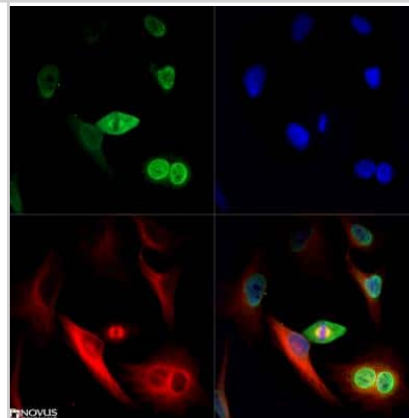
Immunocytochemistry/Immunofluorescence: NuMA Antibody [NB500-174] - Human HeLa cells fixed with 3.5% formaldehyde and stained with NB500-174 at 1:1000. The staining pattern shows the typical pattern for NuMA in the cell nucleus during interphase and on spindles during mitosis.



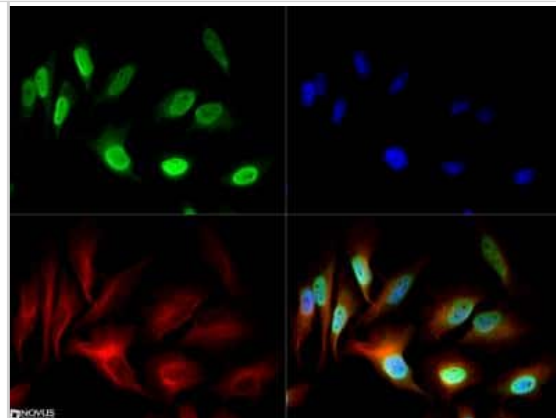
Immunohistochemistry-Paraffin: NuMA Antibody [NB500-174] - Analysis of FFPE tissue section of human placenta using rabbit polyclonal NuMA antibody (NB500-174) at 5 ug/mL. Strong nuclear with moderate cytoplasmic immuno-reactivity of NuMA was observed in syncytiotrophoblast, cytotrophoblasts, Hofbauer cells and the endothelial cells of chorionic villi capillaries. 10X Magnification.



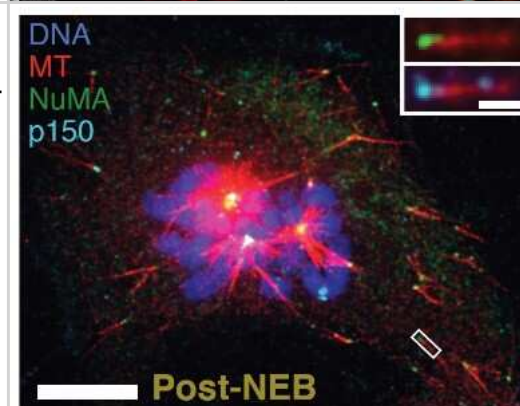
Immunocytochemistry/Immunofluorescence: NuMA Antibody [NB500-174] - NuMA antibody was tested in HeLa cells with DyLight 488 (green). Nuclei and alpha-tubulin were counterstained with DAPI (blue) and DyLight 550 (red).



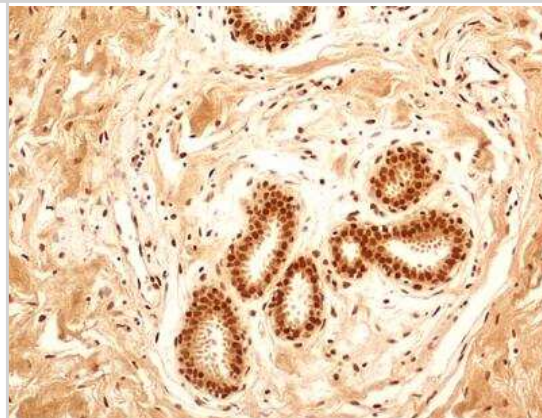
Immunocytochemistry/Immunofluorescence: NuMA Antibody [NB500-174] - NuMA antibody was tested in HeLa cells with DyLight 488 (green). Nuclei and alpha-tubulin were counterstained with DAPI (blue) and DyLight 550 (red).



Immunocytochemistry/Immunofluorescence: NuMA Antibody [NB500-174] - Dynactin and NuMA display specific, steady-state binding at mitotic minus-ends. See also Figure 1-figure supplement 1 and Videos 1-3. Representative immunofluorescence image showing co-localization of NuMA (green) and p150 (dynactin subunit; cyan) at microtubule minus-ends in mitotic PtK2 cells (post-NEB) fixed after washout of 5 uM nocodazole. Scale bar, 10 um. Inset: zoom of white box, with 1 um scale bar. Image collected and cropped by CiteAb from the following publication (<https://elifesciences.org/articles/29328>), licensed under a CC-BY license.



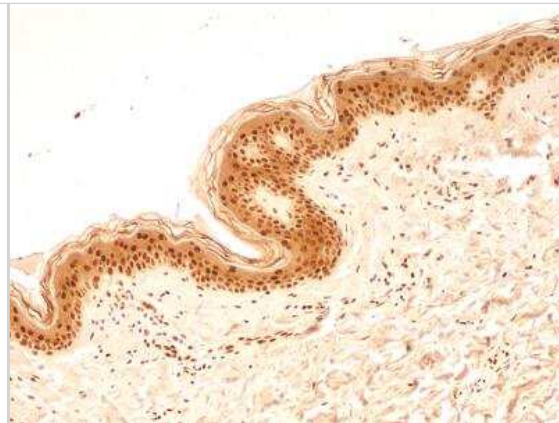
Immunohistochemistry-Paraffin: NuMA Antibody [NB500-174] - Analysis of FFPE tissue section of human normal breast using rabbit polyclonal NuMA antibody (NB500-174) at 5 ug/mL. The breast ductal/acinar epithelial cells, the myoepithelial cells and some cells in the surrounding connective tissue depicted a strong nuclear along with moderate cytoplasmic immuno-positivity for NuMA protein. The intra-lobular and the surrounding connective tissue also developed weak/potentially non-specific staining. 10X Magnification.



Immunohistochemistry-Paraffin: NuMA Antibody [NB500-174] - Analysis of FFPE tissue section of human normal spleen using rabbit polyclonal NuMA antibody (NB500-174) at 5 ug/mL. Most of the cells developed a strong nuclear along with moderate cytoplasmic immuno-positivity for NuMA protein. 10X Magnification.



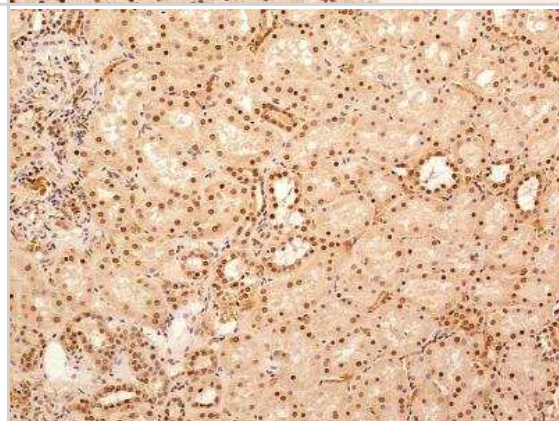
Immunohistochemistry-Paraffin: NuMA Antibody [NB500-174] - Analysis of FFPE tissue section of human normal skin using rabbit polyclonal NuMA antibody (NB500-174) at 5 ug/mL. Almost all the cells in the epidermal layer and the cells in the connective tissue of dermal layer depicted very strong nuclear along with moderate cytoplasmic immunopositivity for NuMA protein. 10X Magnification.



Immunohistochemistry-Paraffin: NuMA Antibody [NB500-174] - Analysis of FFPE tissue section of human normal brain using rabbit polyclonal NuMA antibody (NB500-174) at 5 ug/mL. The cells in the brain tissue depicted strong specific nuclear along with weak cytoplasmic immunopositivity for NuMA protein. 10X Magnification.



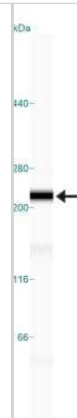
Immunohistochemistry-Paraffin: NuMA Antibody [NB500-174] - Analysis of FFPE tissue section of human normal kidney using rabbit polyclonal NuMA antibody (NB500-174) at 5 ug/mL. The cells of various tubules/ducts and Bowman's capsule in the renal tissue depicted strong nuclear along with relatively weak cytoplasmic immunopositivity for NuMA protein. 10X Magnification.



Immunohistochemistry-Paraffin: NuMA Antibody [NB500-174] - Analysis of FFPE tissue section of human normal prostate using rabbit polyclonal NuMA antibody (NB500-174) at 5 ug/mL. The prostatic alveolar glandular epithelium as well as the surrounding fibromuscular stroma cells showed a strong nuclear immunoreactivity for NuMA protein. Almost all the cells developed some cytoplasmic staining also. 10X Magnification.



Simple Western: NuMA Antibody [NB500-174] - Image shows a specific band for NuMA in 0.2 mg/mL of HeLa lysate. This experiment was performed under reducing conditions using the 66-440 kDa separation system.



Publications

Neahring L, Cho NH, He Y, Liu G et Al. Torques within and outside the human spindle balance twist at anaphase J Cell Biol 2024-06-13 [PMID: 38869473]

Sutanto R, Neahring L, Serra Marques A et Al. The oncogene cyclin D1 promotes bipolar spindle integrity under compressive force PLoS One 2024-03-13 [PMID: 38478555]

M Fankhaenel, FSG Hashemi, L Mourao, E Lucas, MM Hosawi, P Skipp, X Morin, CLGJ Scheele, S Elias Annexin A1 is a polarity cue that directs mitotic spindle orientation during mammalian epithelial morphogenesis Nature Communications, 2023-01-11;14(1):151. 2023-01-11 [PMID: 36631478]

Neahring L, Cho NH, Dumont S. Opposing motors provide mechanical and functional robustness in the human spindle Developmental cell 2021-09-30 [PMID: 34614397]

Vargas-Hurtado D, Brault JB, Piolot T et al. Differences in Mitotic Spindle Architecture in Mammalian Neural Stem Cells Influence Mitotic Accuracy during Brain Development Curr. Biol. 2019-09-23 [PMID: 31495584]

Begley MA, Solon AL, Davis EM et al. K-fiber bundles in the mitotic spindle are mechanically reinforced by Kif15 Molecular Biology of the Cell 2021-12-01 [PMID: 34668719] (Immunocytochemistry/ Immunofluorescence)

Chen Q, Weng K, Lin M et al. SOX9 modulates the transformation of gastric stem cells through biased symmetric cell division Gastroenterology 2023-02-03 [PMID: 36740200]

Serra-Marques A, Houtekamer R, Hintzen D, Canty JT The mitotic protein NuMA plays a spindle-independent role in nuclear formation and mechanics J Cell Biol 2020-10-12 [PMID: 33044554]

Pascal A, Gallaud E, Giet R, Benaud C Annexin A2 and Ahnak control cortical NuMA-dynein localization and mitotic spindle orientation Journal of cell science 2022-04-01 [PMID: 35362526]

Izumi H, Kaneko Y. Trim32 facilitates degradation of MYCN on spindle poles and induces asymmetric cell division in human neuroblastoma cells. Cancer Res 2014-10-01 [PMID: 25100564] (ICC/IF, Human)

Hueschen CL, Kenny SJ, Xu K, Dumont S NuMA recruits dynein activity to microtubule minus-ends at mitosis Elife 2017-11-29 [PMID: 29185983] (WB, ICC/IF, Marsupial)

Details:
Bettongia (Rat-kangaroo)

Begley MA, Solon AL, Davis EM et al. K-fiber bundles in the mitotic spindle are mechanically reinforced by Kif15 bioRxiv Jan 1 2020 12:00AM (ICC/IF, KD, Mammal)

More publications at <http://www.novusbio.com/NB500-174>



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

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