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> > Product data sheet

NuMA Polyclonal Antibody

Catalog Number PA3-16829

Details		Species Reactivity	
Size	100 µL	Species reactivity	Human, Marsupial, Mouse, Non- human primate, Rat
Host/Isotope	Rabbit / IgG	Published species	Human, Not Applicable
Class	Polyclonal		
Туре	Antibody	Tested Applications	Dilution *
	Full-length recombinant human	Immunohistochemistry (Frozen) (IHC (F))	Assay-Dependent
Immunogen	NuMA expressed in insect Sf9 cells using baculovirus expression system	Immunohistochemistry (Paraffin) (IHC (P))	5 µg/mL
Conjugate	Unconjugated	Immunoprecipitation (IP)	1:10-1:500
Form	Liquid	Western Blot (WB)	1:1,000
Concentration	Conc. Not Determined	Immunocytochemistry (ICC/IF)	1:200-1:500
Storage buffer	whole serum	Suggested working dilutions are given as a guide only. It is recommended that the user titrate the product for use in their own experiment using appropriate negative and positive controls.	
Contains	0.02% sodium azide		
Storage Conditions	-20°C or -80°C if preferred		

Product specific information

Suggested positive control: Hela whole cell extract.

Background/Target Information

NuMA (nuclear mitotic apparatus) is a long coil-coiled protein that plays a role in the interphase and mitosis phases of a cell cycle. In interphase, it has been hypothesized to play a structural role in the nucleoskeleton that may be important in nuclear organization and functions. During mitosis, it is associated with spindle microtubule organization and chromosome positioning.

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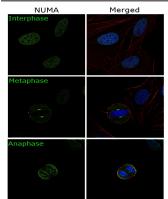
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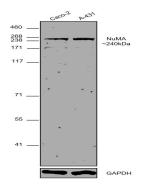


Product Images For NuMA Polyclonal Antibody



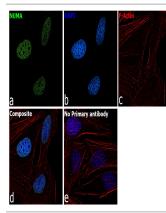
NuMA Antibody (PA3-16829)

Antibody specificity was demonstrated by detection of differential localisations of the target across mitosis. Differential localisation of NuMA was tested in HeLa cells in different phases of cell cycle, and was observed to be nuclear in the interphase cells, localised to the spindle poles in metaphasic cells, and loss of this upon dissolution of the spindle apparatus with progression through Anaphase, using NuMA Polyclonal Antibody (Product # PA3-16829) in immunofluorescence. {RE}



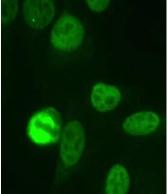
NuMA Antibody (PA3-16829) in WB

Western blot was performed using Anti-NuMA Polyclonal Antibody (Product # PA3-16829) and a 240 kDa band corresponding to NuMA was observed in all tested cell lines. Modified whole cell lysates (1% SDS) (30 µg lysate) of Caco-2 (Lane 1) and A-431 (Lane 2) were electrophoresed using Novex® NuPAGE® 4-12 % Bis-Tris gel (Product # NP0322BOX). Resolved proteins were then transferred onto a nitrocellulose membrane (Product # IB23001) by iBlot® 2 Dry Blotting System (Product # IB21001). The blot was probed with the primary antibody (1:1,000 dilution) and detected by chemiluminescence with Goat anti-Rabbit IgG (Heavy Chain) Superclonal[™] Recombinant Secondary Antibody, HRP (Product # A27036, 1:4,000 dilution) using the iBright FL 1000 (Product # A32752). Chemiluminescent detection was performed using SuperSignal[™] West Dura Extended Duration Substrate (Product # 34076).



NuMA Antibody (PA3-16829) in ICC/IF

Immunofluorescence analysis of NuMA was performed using HeLa cells. The cells were fixed with 4% paraformaldehyde for 10 minutes, permeabilized with 0.1% Triton[™] X-100 for 15 minutes, and blocked with 2% BSA for 1 hour at room temperature. The cells were labeled with NuMA Polyclonal Antibody (Product # PA3-16829) at 1: 200 dilution in 0.1% BSA, incubated at 4 degree celsius overnight and then labeled with Goat anti-Rabbit IgG (Heavy Chain) Superclonal[™] Recombinant Secondary Antibody, Alexa Fluor® 488 conjugate (Product # A27034) at a dilution of 1:2000 for 45 minutes at room temperature (Panel a: green). Nuclei (Panel b: blue) were stained with ProLong[™] Diamond Antifade Mountant with DAPI (Product # P36962). F-actin (Panel c: red) was stained with Rhodamine Phalloidin (Product # R415, 1:300). Panel d represents the merged image showing nuclear localization. Panel e represents control cells with no primary antibody to assess background. The images were captured at 60X magnification.



NuMA Antibody (PA3-16829) in ICC/IF

Immunocytochemistry analysis of NuMA in Human HeLa cells fixed with 3.5% formaldehyde. Samples were incubated in NuMA polyclonal antibody (Product # PA3-16829) using a dilution of 1:1000. The staining pattern shows the typical pattern for NuMA in the cell nucleus during interphase and on spindles during mitosis.

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NuMA Antibody (PA3-16829) in IHC (P)



Immunohistochemical analysis of NuMA in formalin-fixed paraffin-embedded tissue section of human normal breast. Samples were incubated in NuMA polyclonal antibody (Product # PA3-16829) using a dilution of 5 μ g/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.



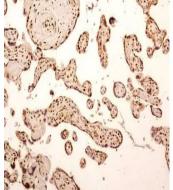
NuMA Antibody (PA3-16829) in IHC (P)

Immunohistochemical analysis of NuMA in formalin-fixed paraffin-embedded tissue section of human normal prostate. Samples were incubated in NuMA polyclonal antibody (Product # PA3-16829) using a dilution of 5 μ g/mL. The prostatic alveolar glandular epithelium as well as the surrounding fibromuscular stroma cells showed a strong nuclear immuno-reactivity for NuMA protein. Almost all the cells developed some cytoplasmic staining also. 10X Magnification.



NuMA Antibody (PA3-16829) in IHC (P)

Immunohistochemical analysis of NuMA in formalin-fixed paraffin-embedded tissue section of human normal skin. Samples were incubated in NuMA polyclonal antibody (Product # PA3-16829) using a dilution of 5 µg/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 immuno-positivity for NuMA protein. 10X Magnification.



NuMA Antibody (PA3-16829) in IHC (P)

Immunohistochemical analysis of NuMA in formalin-fixed paraffin-embedded tissue section of human placenta. Samples were incubated in NuMA polyclonal antibody (Product # PA3-16829) using a dilution of 5 µg/mL. Strong nuclear with moderate cytoplasmic immuno-reactivity of NuMA was observed in syncytiotrophoblast, cytiotrophoblasts, Hofbauer cells and the endothelial cells of chorionic villi capillaries. 10X Magnification.

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NuMA Antibody (PA3-16829) in IHC (P)

Immunohistochemical analysis of NuMA in formalin-fixed paraffin-embedded tissue section of human normal kidney. Samples were incubated in NuMA polyclonal antibody (Product # PA3-16829) using a dilution of 5 μ g/mL. The cells of various tubules/ducts and Bowmans capsule in the renal tissue depicted strong nuclear along with relatively weak cytoplasmic immuno-positivity for NuMA protein. 10X Magnification.



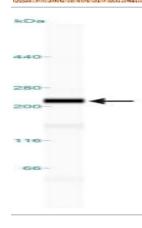
NuMA Antibody (PA3-16829) in IHC (P)

Immunohistochemical analysis of NuMA in formalin-fixed paraffin-embedded tissue section of human normal brain. Samples were incubated in NuMA polyclonal antibody (Product # PA3-16829) using a dilution of 5 µg/mL. The cells in the brain tissue depicted strong specific nuclear along with weak cytoplasmic immuno-positivity for NuMA protein. 10X Magnification.



NuMA Antibody (PA3-16829) in IHC (P)

Immunohistochemical analysis of NuMA in formalin-fixed paraffin-embedded tissue section of human normal spleen. Samples were incubated in NuMA polyclonal antibody (Product # PA3-16829) using a dilution of 5 µg/mL. Most of the cells developed a strong nuclear along with moderate cytoplasmic immuno-positivity for NuMA protein. 10X Magnification.



NuMA Antibody (PA3-16829) in WB

Western blot analysis of NuMA in 0.2 mg/mL HeLa lysate. Samples were incubated in NuMA polyclonal antibody (Product # PA3-16829). This experiment was performed under reducing conditions using the 12-230 kDa separation system.

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2383 - NuMa	NuMA Antibody (PA3-16829) in WB Western blot analysis of NuMA in Cos7 whole cell lysate. Sample was incubated in NuMA polyclonal antibody (Product # PA3-16829).
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