NPM1 Monoclonal Antibody (FC-61991)

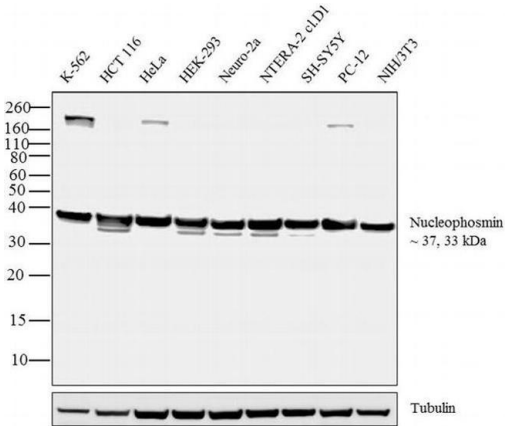
Product Details	
Size	100 µg
Species Reactivity	Human, Mouse, Rat
Published Species	Virus, Non-human primate, Human, Mouse
Host/Isotype	Mouse / IgG1
Class	Monoclonal
Type	Antibody
Clone	FC-61991
Conjugate	Unconjugated
Immunogen	NPM/B23 purified from rat hepatoma.
Form	Liquid
Concentration	0.5 mg/mL
Purification	Protein A
Storage buffer	PBS, pH 7.4
Contains	0.1% sodium azide
Storage conditions	-20°C
RRID	AB_2533084

Applications	Tested Dilution	Publications
Western Blot (WB)	1-3 µg/mL	22 Publications
Immunohistochemistry (IHC)	Assay-dependent	6 Publications
Immunocytochemistry (ICC/IF)	2-10 µg/mL	24 Publications
ELISA (ELISA)	1-2 µg/mL	-
Immunoprecipitation (IP)	10 µg	3 Publications
RNA Immunoprecipitation (RIP)	Assay-dependent	-
Miscellaneous PubMed (Misc)	-	19 Publications

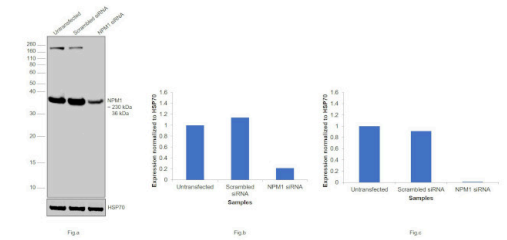
Product Specific Information

This antibody reacts with the C-terminus of Nucleophosmin (B23). Positive controls used: HeLa, K562, Jurkat, MCF-7, and HL60 cell lysates). In western blots the antibody recognizes a band at ~37 kDa.

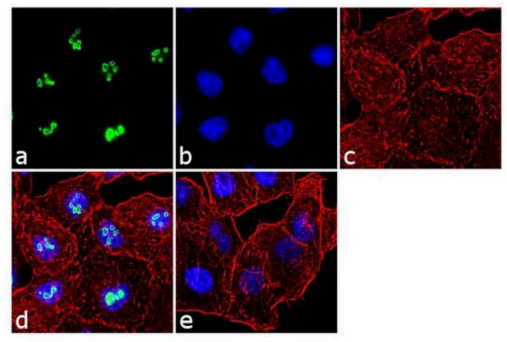
Product Images For NPM1 Monoclonal Antibody (FC-61991)



NPM1 Antibody (32-5200) in WB
Western blot analysis was performed on nuclear enriched cell extracts of K-562 (Lane 1), HCT 116 (Lane 2), HeLa (Lane 3), HEK-293 (Lane 4), Neuro-2a (Lane 5), NTERA-2 cl.D1 (Lane 6), SH-SY5Y (lane 7), PC-12 (lane 8) and NIH/3T3 (Lane 9). Blots were probed with Anti- Nucleophosmin Mouse Monoclonal Antibody (Product # 32-5200, 2 µg/mL) and detected by chemiluminescence using Goat anti-Mouse IgG (H+L) Superclonal™ Secondary Antibody, HRP conj µgate (Product # A28177, 0.4 µg/mL, 1:2500 dilution). A ~ 37 kDa band corresponding to Nucleophosmin was observed across all cell lines. An additional ~ 33 kDa band corresponding to Nucleophosmin isoform was observed in HCT 116 (Lane 2), HEK-293 (Lane 4), Neuro-2a (Lane 5), NTERA-2 cl.D1 (Lane 6) and SH-SY5Y (lane 7). Bands of ~210 kDa observed in K-562 (Lane 1), HeLa (Lane 3) and PC-12 (lane 8) could be due to oligomerisation of Nucleophosmin. Protein samples were electrophoresed using Novex® NuPAGE® 4-12 % Bis-Tris gel (Product # NP0321BOX), XCell SureLock™ Electrophoresis System (Product # EI0002) and Novex® Sharp Pre-Stained Protein Standard (Product # LC5800). Resolved proteins were transferred onto a nitrocellulose membrane and probed with the relevant primary and secondary Antibody following blocking with 5 % skimmed milk. Chemiluminescent detection was performed using Pierce™ ECL Western Blotting Substrate (Product # 32106).



NPM1 Antibody (32-5200)
Antibody specificity was demonstrated by siRNA mediated knockdown of target protein. HeLa cells were transfected with NPM1 siRNA and decrease in signal intensity was observed in western blot application using Anti-NPM1 Monoclonal Antibody (FC-61991) (Product # 32-5200). {KD}



NPM1 Antibody (32-5200) in ICC/IF
Immunofluorescence analysis of Nucleophosmin was performed using 70% confluent log phase A549 cells. The cells were fixed with 4% paraformaldehyde for 10 minutes, permeabilized with 0.1% Triton™ X-100 for 10 minutes, and blocked with 1% BSA for 1 hour at room temperature. The cells were labeled with Nucleophosmin (FC-61991) Mouse Monoclonal Antibody (Product # 32-5200) at 2 µg/mL in 0.1% BSA and incubated for 3 hours at room temperature and then labeled with Goat anti-Mouse IgG (H+L) Superclonal™ Secondary Antibody, Alexa Fluor® 488 conj µgate (Product # A28175) at a dilution of 1:2000 for 45 minutes at room temperature (Panel a: green). Nuclei (Panel b: blue) were stained with SlowFade® Gold Antifade Mountant with DAPI (Product # S36938). F-actin (Panel c: red) was stained with Alexa Fluor® 555 Rhodamine Phalloidin (Product # R415, 1:300). Panel d represents the merged image showing nucleolar localization. Panel e shows the no primary antibody control. The images were captured at 60X magnification.

View more figures on thermofisher.cn

74 References

Western Blot (22)

Journal of experimental & clinical cancer research : CR

Mutant NPM1-regulated lncRNA HOTAIRM1 promotes leukemia cell autophagy and proliferation by targeting EGR1 and ULK3.

"32-5200 was used in Western Blotting to indicate that HOTAIRM1 may be a promising therapeutic target for this distinct leukemia subtype."

Authors: Jing Y,Jiang X,Lei L,Peng M,Ren J,Xiao Q,Tao Y,Tao Y,Huang J,Wang L,Tang Y,Yang Z,Yang Z,Zhang L

Year 2021

Species Human

Dilution 1:1000

Genes to cells : devoted to molecular & cellular mechanisms

14-3-3 prevents centrosome duplication by inhibiting NPM1 function.

"32-5200 was used in Western Blot to identify a novel role of 14-3-3 in regulating centrosome licensing and a novel mechanism underlying the formation and dissociation of 14-3-3 ligand complexes dictated by conserved residues in the 14-3-3 family."

Authors: Bose A,Modi K,Dey S,Dalvi S,Nadkarni P,Sudarshan M,Kundu TK,Venkatraman P,Dalal SN

Year 2021

Species Human

Dilution 1:5000

View more WB references on thermofisher.cn

Immunohistochemistry (6)

Biophysical reports

Expansion microscopy of neutrophil nuclear structure and extracellular traps.

"32-5200 was used in Immunohistochemistry-immunofluorescence to show that expansion microscopy enables superresolved imaging of the highly dynamic structure of nuclei in immune cells."

Authors: Holsapple JS,Schnitzler L,Rusch L,Baldeweg TH,Neubert E,Kruss S,Erpenbeck L

Year 2023

Species Human

Dilution 1:500

Nature communications

SOD1 regulates ribosome biogenesis in KRAS mutant non-small cell lung cancer.

"32-5200 was used in Immunohistochemistry to describe the generation of an inducible Sod1 knockout in KRAS-driven NSCLC mouse model."

Authors: Wang X,Zhang H,Sapio R,Yang J,Wong J,Zhang X,Guo JY,Pine S,Van Remmen H,Li H,White E,Liu C, Kiledjian M,Pestov DG,Steven Zheng XF

Year 2021

Species Mouse

Dilution 1:200

View more IHC references on thermofisher.cn

More applications with references on thermofisher.cn

ICC/IF (24) IP (3) Misc (19)

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