

Product Datasheet

RRM2 Antibody - Azide Free

NBP1-31661

Unit Size: 100 ul

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

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NBP1-31661

RRM2 Antibody - Azide Free

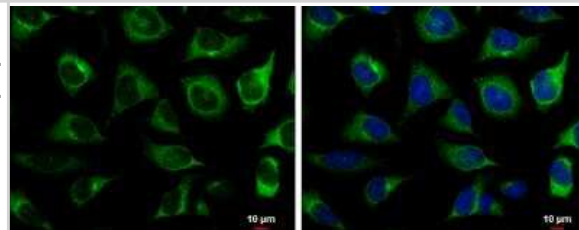
Product Information	
Unit Size	100 ul
Concentration	Concentrations vary lot to lot. See vial label for concentration. If unlisted please contact technical services.
Storage	Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.025% Proclin 300
Isotype	IgG
Purity	Antigen Affinity-purified
Buffer	PBS, 1% BSA, 20% Glycerol
Target Molecular Weight	45 kDa

Product Description	
Host	Rabbit
Gene ID	6241
Gene Symbol	RRM2
Species	Human, Mouse, Rat, Zebrafish
Immunogen	Recombinant protein encompassing a sequence within the center region of human RRM2. The exact sequence is proprietary.

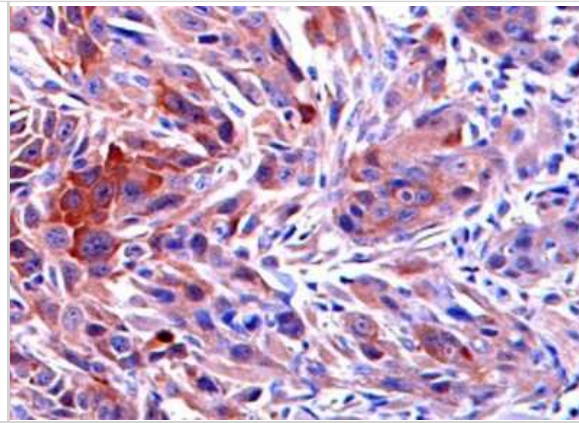
Product Application Details	
Applications	Western Blot, Simple Western, Immunohistochemistry-Paraffin, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry
Recommended Dilutions	Western Blot Assay dependent, Simple Western 1:25 - 1:400, Immunohistochemistry 1:100-1:1000, Immunocytochemistry/ Immunofluorescence 1:100-1:1000, Immunohistochemistry-Paraffin 1:100-1:1000
Application Notes	See Simple Western Antibody Database for Simple Western validation: Tested in ANBL6 Whole cell lysate, separated by Size, antibody dilution of 1:25,1:100,1:400, apparent MW was 45 kDa

Images

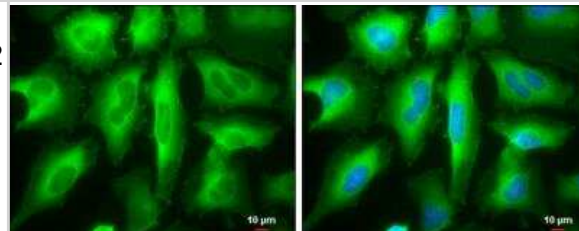
Immunocytochemistry/Immunofluorescence: RRM2 Antibody [NBP1-31661] - HeLa cells were fixed in 4% paraformaldehyde at RT for 15 min. Green: RRM2 protein stained by RRM2 antibody [N1C1] diluted at 1:500. Blue: Hoechst 33342 staining. Scale bar = 10 um.



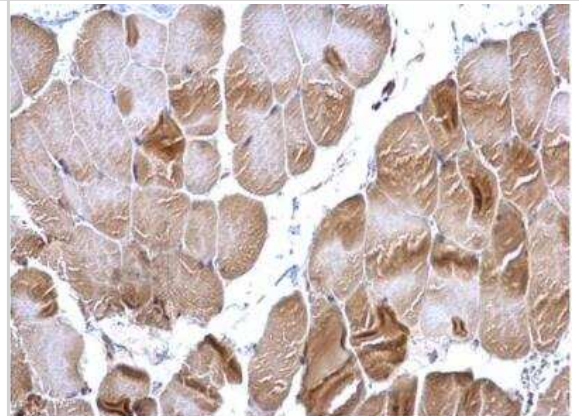
Immunohistochemistry-Paraffin: RRM2 Antibody [NBP1-31661] - Mouse tumor tissues were stained with RRM2 antibody at 1:50 dilution. Image submitted by a verified customer review.



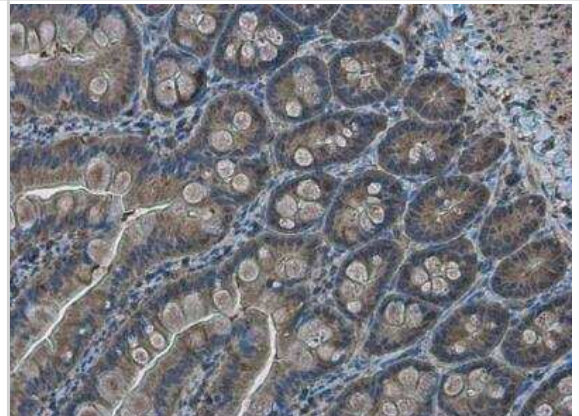
Immunocytochemistry/Immunofluorescence: RRM2 Antibody [NBP1-31661] - HeLa cells were fixed in ice-cold MeOH for 5 min. Green: RRM2 protein stained by RRM2 antibody [N1C1] diluted at 1:1000. Blue: Hoechst 33342 staining. Scale bar = 10 um.



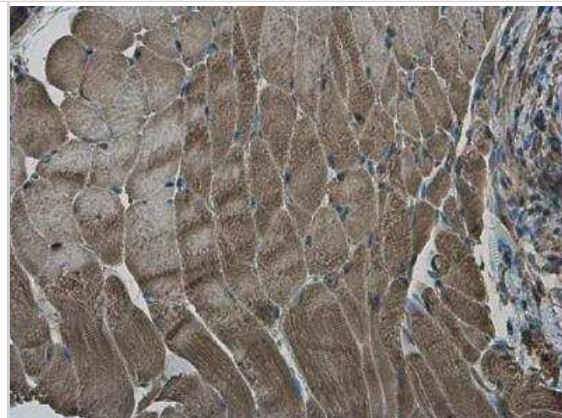
Immunohistochemistry-Paraffin: RRM2 Antibody [NBP1-31661] - Mouse muscle. RRM2 antibody [N1C1] diluted at 1:500. Antigen Retrieval: Trilogy™ (EDTA based, pH 8.0) buffer, 15min.



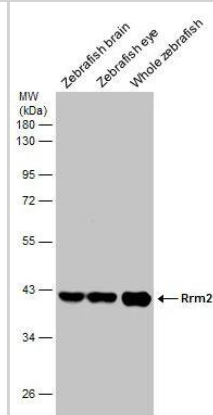
Immunohistochemistry-Paraffin: RRM2 Antibody [NBP1-31661] - Rat intestine. RRM2 antibody [N1C1] diluted at 1:500. Antigen Retrieval: Citrate buffer, pH 6.0, 15 min.



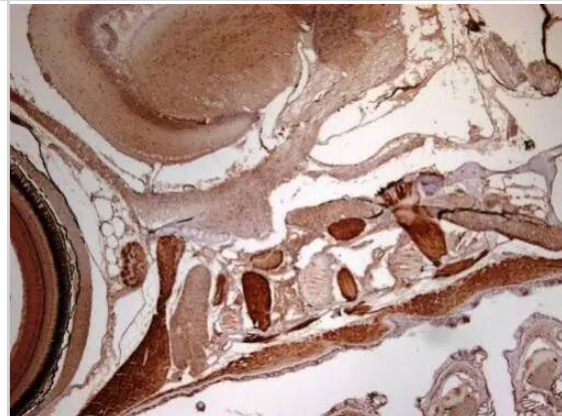
Immunohistochemistry-Paraffin: RRM2 Antibody [NBP1-31661] - Mouse muscle. RRM2 antibody [N1C1] diluted at 1:500. Antigen Retrieval: Citrate buffer, pH 6.0, 15 min.



Western Blot: RRM2 Antibody [NBP1-31661] - Various tissue extracts (30 ug) were separated by 10% SDS-PAGE, and the membrane was blotted with RRM2 antibody [N1C1] diluted at 1:1000.



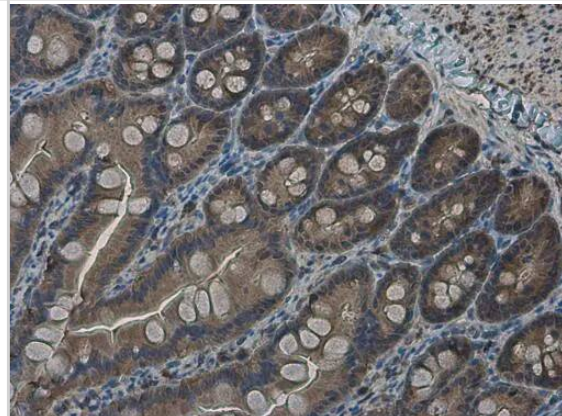
Immunohistochemistry: RRM2 Antibody [NBP1-31661] - Immunohistochemical analysis of paraffin-embedded zebrafish tissue, using RRM2 antibody [N1C1] (NBP1-31661) at 1:300 dilution.



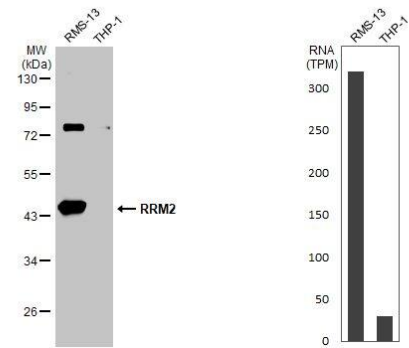
Immunohistochemistry-Paraffin: RRM2 Antibody [NBP1-31661] - RRM2 antibody [N1C1] detects RRM2 protein at cytoplasm in rat intestine by immunohistochemical analysis.

Sample: Paraffin-embedded rat intestine.
RRM2 antibody [N1C1] (NBP1-31661) diluted at 1:500.

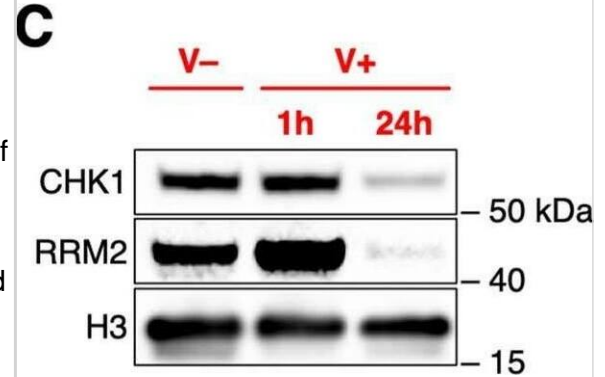
Antigen Retrieval: Citrate buffer, pH 6.0, 15 min



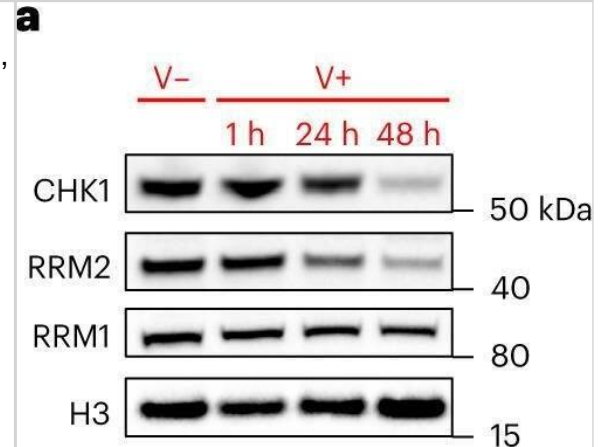
Various whole cell extracts (30 ug) were separated by 10% SDS-PAGE, and the membrane was blotted with RRM2 antibody [N1C1] (NBP1-31661) diluted at 1:1000. The HRP-conjugated anti-rabbit IgG antibody was used to detect the primary antibody. Corresponding RNA expression data for the same cell lines are based on Human Protein Atlas program.



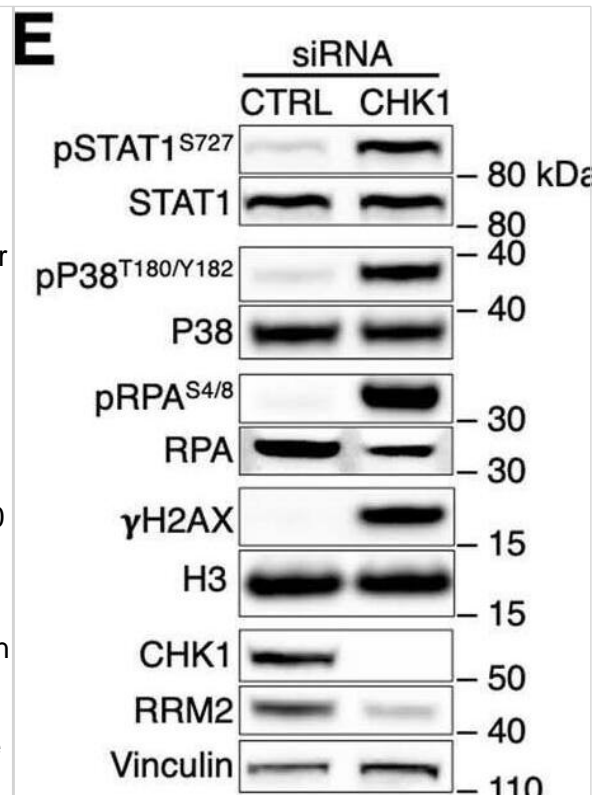
SARS-CoV-2 causes CHK1 and RRM2 reduction leading to cell cycle progression impairment. A) IF images of infected HNEpC; nuclei were stained with Hoechst. Scale bar, 10 μ m. B) Quantification of the percentage of RRM2-expressing cells in infected (SARS-CoV-2 N+) or not (SARS-CoV-2 N-) HNEpC. C) Immunoblotting of whole cell lysates of Calu-3 infected, or not, with SARS-CoV-2 and analyzed at different time points post-infection. D) Quantification of protein levels shown in C; values are shown as relative to mock-infected samples. E, F) RT-qPCR of CHK1 and RRM2 mRNA expression in infected (V+) or mock-infected (V-) Huh7 and Calu-3 cells, respectively. G) Immunoblotting of CDT1 in Huh7 and Calu-3 cells treated as indicated. The experiment was repeated three times with similar results. Source numerical data and unprocessed blots are available in source data. Source data Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/36894671>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



SARS-CoV-2 reduces CHK1 and RRM2 levels leading to dNTP shortage. a, Immunoblotting of whole cell lysates of Huh7 infected, or not, with SARS-CoV-2 and analysed at different timepoints post-infection. b, Quantification of protein levels shown in a; values are shown as relative to mock-infected samples. c, Immunofluorescence (IF) images of infected (V+) or mock-infected (V-) Huh7 cells fixed 48 h post-infection; nuclei were stained with DAPI. Scale bar, 10 μ m. d, Quantification of CHK1- or RRM2-positive cells shown in c; n = 3 independent experiments. e, dNTP concentration was measured in V- or V+ Huh7 and Calu-3; values are shown as relative to V-. f, Histograms show the percentage of cells in each phase of the cell cycle in V- or V+ Huh7 fixed 48 h post-infection. g, Fraction of V- or V+ Huh7 cells that did not incorporate BrdU (BrdU-) measured by flow cytometry 48 h post-infection. Source numerical data and unprocessed blots are available in source data. Source data Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/36894671>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



CHK1 depletion is sufficient to recapitulate the effects of SARS-CoV-2 infection. A) Huh7 transfected with siRNAs against CHK1 mRNA (siCHK1) or siCTRL were stained for CHK1 and propidium iodide (PI) prior to flow cytometry. B) DNA content analysis of V- or V+ Huh7 fixed 48 h post-infection and siCHK1- or siCTRL-transfected Huh7. C) Histograms show the percentage of cells in each phase of the cell cycle upon siCHK1 or siCTRL treatment. D) Bivariate plot showing DNA content (PI) and BrdU incorporation measured by flow cytometry of V- or V+ Huh7 fixed 48 h post-infection and siCHK1- or siCTRL-transfected Huh7. E) Immunoblots of siCHK1- or siCTRL-transfected Huh7. F) Quantification of protein levels shown in E; values are the means \pm s.e.m. of two independent experiments and shown as relative to the siCTRL-transfected sample. G) IF images of Calu-3 transfected with the indicated siRNAs; nuclei were stained with DAPI. Scale bar, 10 μ m. H) Quantification of γ H2AX foci per cell shown in G. I) IF images of cGAS staining in samples as in G; nuclei were stained with DAPI. Scale bar, 10 μ m. J) Micronuclei and cGAS+ micronuclei quantifications on total cell number; at least 300 nuclei were scored for each sample. K,L) RT-qPCR for pro-inflammatory cytokines and CHK1 mRNA expression in siCHK1-treated Calu-3 and Huh7 cells, respectively. Values are shown as relative to siCTRL-transfected samples. M) Quantification of the amounts of secreted cytokines and chemokines from siCHK1- or siCTRL-transfected Calu-3 by Bio-Plex multiplex immunoassays. Source numerical data and unprocessed blots are available in source data. Source data Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/36894671>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

MacMillan A, Karki B, Yang J et al. PRPS activity tunes redox homeostasis in Myc-driven lymphoma Redox Biology 2025-07-01 [PMID: 40446642]

White JR, Thompson DT, Koch KE et al. AP-2 β -Mediated Activation of E2F and EZH2 Drives Melanoma Metastasis Cancer Research 2021-09-01 [PMID: 34210752] (Western Blot, Human)

Chen YH, Chen YC, Lin CC et al. Synergistic Anticancer Effects of Gemcitabine with Pitavastatin on Pancreatic Cancer Cell Line MIA PaCa-2 in vitro and in vivo Cancer Manag Res 2020-06-17 [PMID: 32606957] (Western Blot, Human)

Abdel-Rahman MA, Mahfouz M, Habashy HO RRM2 expression in different molecular subtypes of breast cancer and its prognostic significance Diagnostic pathology 2022-01-05 [PMID: 34986845] (IHC-P, Human)

Leslie PL, Chao YL, Tsai YH et al. Histone deacetylase 11 inhibition promotes breast cancer metastasis from lymph nodes Nat Commun 2019-09-13 [PMID: 31519896] (WB, Human)



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HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control
NBP1-44468	Recombinant Human RRM2 His Protein

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