Product Datasheet

Rac1 Antibody
NB100-91266

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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Reviews: 1 Publications: 5

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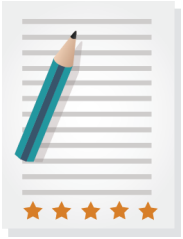
Updated 9/9/2025 v.20.1



NB100-91266

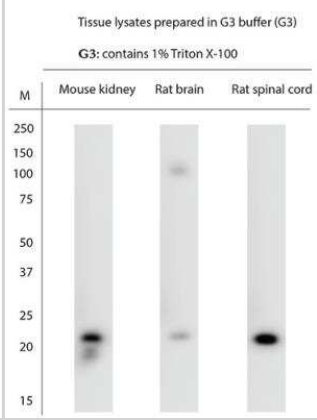
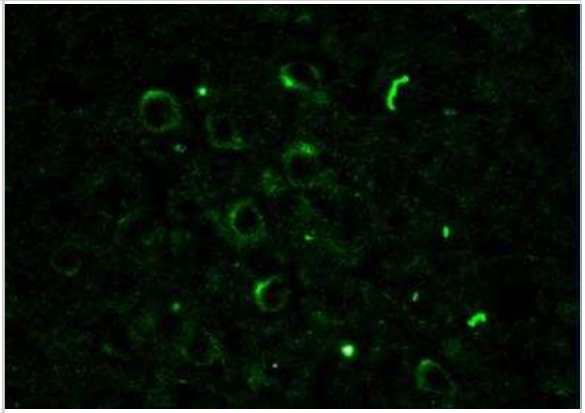
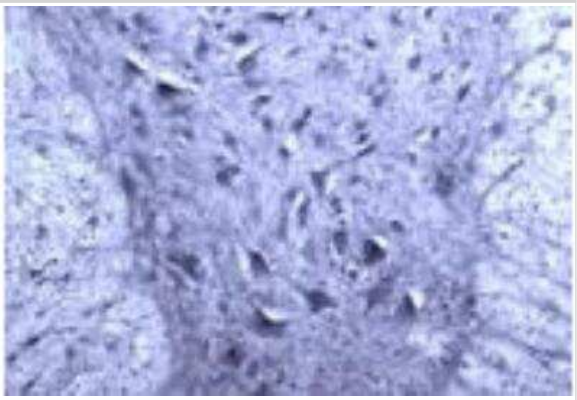
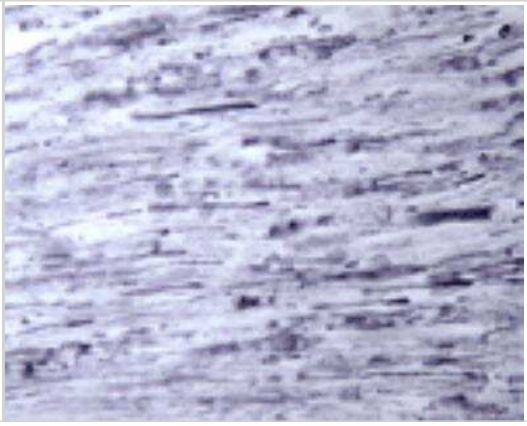
Rac1 Antibody

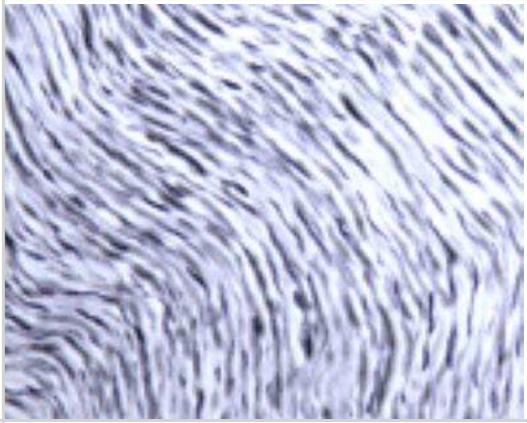
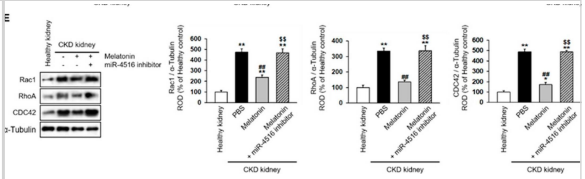
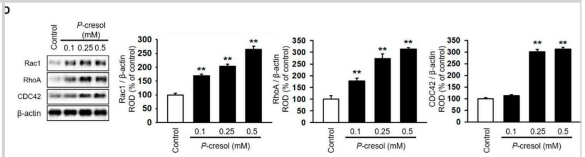
Product Information	
Unit Size	0.1 ml
Concentration	This product is unpurified. The exact concentration of antibody is not quantifiable.
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	No Preservative
Reconstitution Instructions	Reconstitute in 0.1 ml of sterile water. Centrifuge to remove any insoluble material. Glycerol may be added (1:1) for additional stability. Please note the sample size is provided in reconstituted format.
Isotype	IgG
Purity	Unpurified
Buffer	Lyophilized from whole antisera

Product Description	
Description	Novus Biologicals Rabbit Rac1 Antibody (NB100-91266) is a polyclonal antibody validated for use in IHC, WB and ICC/IF. Anti-Rac1 Antibody: Cited in 5 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Rabbit
Gene ID	5879
Gene Symbol	RAC1
Species	Human, Mouse, Rat
Reactivity Notes	Predicted cross-reactivity based on antigen identity: Guinea pig, Bovine, Xenopus, Canine, Zebrafish, Chicken.
Specificity/Sensitivity	Detects both RAC1 (Gene ID: 5879, UniProt: P63000) and RAC2 (Gene ID: 5880, UniProt: P15153).
Immunogen	This Rac1 antibody was developed against a synthetic peptide from amino acid region 100-150 as a part of human Rac1 conjugated to blue carrier protein.

Product Application Details	
Applications	Western Blot, Immunohistochemistry-Paraffin, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen
Recommended Dilutions	Western Blot 1:1000-1:2000, Immunohistochemistry 1:1000 - 1:2000, Immunocytochemistry/ Immunofluorescence 1:10 - 1:500, Immunohistochemistry-Paraffin 1:1000 - 1:2000, Immunohistochemistry-Frozen 1:1000 - 1:2000
Application Notes	This Rac1 antibody is validated for ICC/IF from a verified customer review.

Images

Western Blot: Rac1 Antibody [NB100-91266] - WB on tissue lysates. Blocking: 1% LFDM for 30 min at RT; primary antibody dilution: 1:1000 incubated overnight at 4C.	
Immunocytochemistry/Immunofluorescence: Rac1 Antibody [NB100-91266] - Mouse Brain (cerebral cortex). ICC/IF image submitted by a verified customer review.	
Immunohistochemistry: Rac1 Antibody [NB100-91266] - Rat spinal cord using Rabbit antibody to RAC1, RAC2 (100-150) at 1:1000 dilution. Pre-absorption of the antibody with the immunising peptide completely abolishes the immunostaining (not shown).	
Immunohistochemistry: Rac1 Antibody [NB100-91266] - Rat spinal cord (ventral horn) using Rabbit antibody to RAC1, RAC2 whole serum at 1:1000 dilution. Pre-absorption of the antibody with the immunizing peptide completely abolishes the immunostaining (not shown).	

Immunohistochemistry: Rac1 Antibody [NB100-91266] - Rat ligated sciatic nerve using Rabbit antibody to RAC1, RAC2 whole serum at 1:1000 dilution. Pre-absorption of the antibody with the immunizing peptide completely abolishes the immunostaining (not shown).	
Melatonin injection restores renal cortical fibrosis in a CKD mouse model via increased expression of miR-4516. (A) Hematoxylin and eosin (H&E) staining was performed on kidney sections from a CKD mouse model following melatonin injection, or melatonin inhibition with miR-4516 inhibitor (scale bar = 1000 μm). (B,C) Expression of miR-4516 and ITGA9 was detected in the kidney cortex in each group by qPCR (n = 3). (D–F) Western blot analysis for ITGA9, Rac1, RhoA, CDC42, collagen type 1, and fibronectin expression using samples from the kidney cortex of each mouse model group (n = 3). Protein levels were determined by densitometry relative to α-tubulin. The values represent mean +/- SEM. * p < 0.05, ** p < 0.01 vs. healthy kidney, ##p < 0.01 vs. phosphate buffered saline (PBS), $$p < 0.01 vs. melatonin. Image collected and cropped by CiteAb from the following open publication (https://pubmed.ncbi.nlm.nih.gov/32727098), licensed under a CC-BY license. Not internally tested by Novus Biologicals.	
Cytoskeleton reorganization and ITGA9-Rho GTPase signaling pathways are activated due to decreased miR-4516 expression following P-cresol exposure. (A,B) Expression of miR-4516 and ITGA9 was detected in human proximal tubular epithelial (TH1) cells with P-cresol (0.1, 0.25, and 0.5 mM) or indoxyl sulfate (0.2, 0.4, and 0.8 mM) exposure for 72 h (n = 3). The values represent mean +/- SEM. * p < 0.05, ** p < 0.01 vs. control. (C,D) Western blot analysis for ITGA9, Rac1, RhoA, and CDC42 in TH1 cells after exposure to various doses of P-cresol (0, 0.1, 0.25, and 0.5 mM) for 72 h (n = 3). Protein expression was determined by densitometry relative to β-actin. The values represent mean +/- SEM. ** p < 0.01 vs. control. Image collected and cropped by CiteAb from the following open publication (https://pubmed.ncbi.nlm.nih.gov/32727098), licensed under a CC-BY license. Not internally tested by Novus Biologicals.	

Publications

Yoon, Y M, Go, G Et al. Melatonin Suppresses Renal Cortical Fibrosis by Inhibiting Cytoskeleton Reorganization and Mitochondrial Dysfunction through Regulation of miR-4516. Int J Mol Sci 2020-07-27 [PMID: 32727098] (IF/IHC, Rabbit)

Manisaligil YA, Gumustekin M, Micili SC Et al. The role of small GTPase Rac1 in ionizing radiation-induced testicular damage International journal of radiation biology 2021-10-13 [PMID: 34597250] (IF/IHC, Rat)

Sylow L, Kleinert M, Pehmoller C et al. Akt and Rac1 signaling are jointly required for insulin-stimulated glucose uptake in skeletal muscle and downregulated in insulin resistance. Cell Signal. 2013-11-09 [PMID: 24216610] (IF/IHC, Mouse)

Sylow L, Jensen TE, Kleinert M et al. Rac1 signaling is required for insulin-stimulated glucose uptake and is dysregulated in insulin resistant murine and human skeletal muscle. Diabetes 2013-02-19 [PMID: 23423567]

Sylow L, Jensen TE, Kleinert M et al. Rac1 Is a Novel Regulator of Contraction-Stimulated Glucose Uptake in Skeletal Muscle. Diabetes 2012-12-28 [PMID: 23274900]

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Products Related to NB100-91266

NBP2-33376H	Blue Marker Antibody (6F4-F6) [HRP]
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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