Product Datasheet

S100A9 Antibody
NB110-89726

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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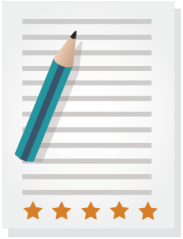
Updated 4/21/2024 v.20.1



NB110-89726

S100A9 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	0.1% Sodium Azide
Isotype	IgG
Purity	Unpurified
Buffer	Whole antisera
Target Molecular Weight	16 kDa

Product Description

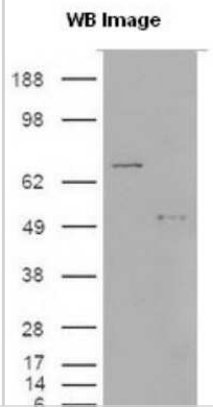
Host	Rabbit
Gene Symbol	S100A9
Species	Human, Mouse, Rat
Immunogen	Full length human S100A9 protein [Swiss-Prot# P06702] expressed in E. coli.

Product Application Details

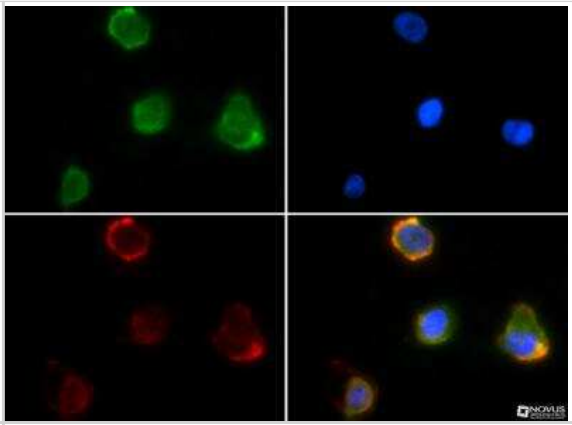
Applications	Western Blot, Simple Western, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin
Recommended Dilutions	Western Blot 1:1000, Simple Western 1:100, Immunohistochemistry reported in scientific literature (PMID 25792748), Immunocytochemistry/ Immunofluorescence 1:50-1:200, Immunohistochemistry-Paraffin reported in scientific literature (PMID 21653680)
Application Notes	In Western blot, a band is seen at approx. 16 kDa. In Simple Western only 10 - 15 uL of the recommended dilution is used per data point. Separated by Size-Wes, Sally Sue/Peggy Sue. The observed molecular weight of the protein may vary from the listed predicted molecular weight due to post translational modifications, post translation cleavages, relative charges, and other experimental factors.

Images

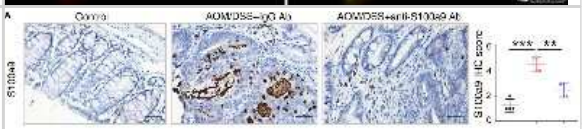
Western Blot: S100A9 Antibody [NB110-89726] - Cells were transfected with the pCMV6-ENTRY control or pCMV6-ENTRY S100A9 cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-S100A9.



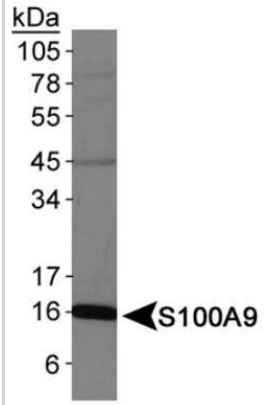
Immunocytochemistry/Immunofluorescence: S100A9 Antibody [NB110-89726] - S100A9 antibody was tested in A431 cells with FITC (green). Nuclei and alpha-tubulin were counterstained with Dapi (blue) and Dylight 550 (red).



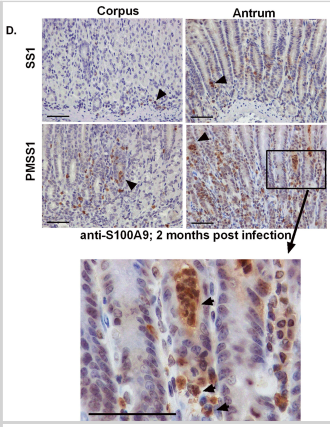
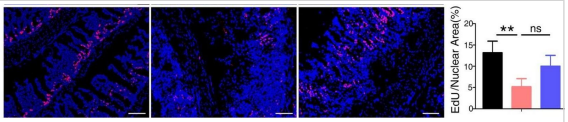
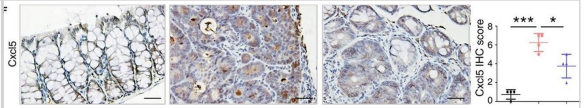
Immunohistochemistry-Paraffin: S100A9 Antibody [NB110-89726] - Key molecules of specific signaling pathways are assayed by immunohistochemistry in the colorectum of mice. Immunohistochemistry (200x magnification) of S100a9, in normal control, IgG Ab, and anti-S100a9 Ab-treated colorectal tissues of the colitis-associated cancer mouse (n = 4). Scale bar, 50 um. Staining scores were determined by semi-quantitative optical analysis. Image collected and cropped by CiteAb from the following publication (http://journal.frontiersin.org/article/10.3389/fimmu.2017.01774/full), licensed under a CC-BY license.



Western Blot: S100A9 Antibody [NB110-89726] - Analysis of S100A9 Antibody in DMSO treated HL60 whole cell lysates.



Simple Western: S100A9 Antibody [NB110-89726] - Simple Western lane view shows a specific band for S100A9 in 0.5 mg/ml of Human PBMC's lysate. This experiment was performed under reducing conditions using the 12-230 kDa separation system.

Host CP (S100A8/A9) is elevated in H. pylori infected stomach tissue. D) Gastric samples derived from H. pylori PMSS1-infected WT mice or SS1-infected WT mice at 2 months post-infection were analyzed via immunohistochemistry using a polyclonal antibody to S100A9 (scale bars are 50 microns). Image collected and cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/25330071), licensed under a CC-BY licence.	
Cell cycle block under PHD3 depletion is accompanied by p27 induction. a PHD3 depletion induces a cell cycle block in G0/G1. HeLa and renal cell adenocarcinoma cells (786-O) were transfected with control (siScr) or PHD3 targeted (siPHD3) siRNA followed by synchronization at G0 and 24-h hypoxic exposure. Cell cycle progression was monitored by FACS analysis 8 h after cell cycle release. The combined means of three independent experiments are presented (±SEM) shown in the tables below. b PHD3 depletion induces p27 expression in HeLa cells and in 786-O cells under hypoxia (1 % O2) and normoxia (21 % O2) by siPHD3 and independent adenoviral shRNA against PHD3. p21 or p16 expression is not elevated by PHD3 knockdown. c Depletion of either PHD1 or PHD2 by siRNA does not increase p27 expression in 786-O cells Image collected and cropped by CiteAb from the following open publication (https://pubmed.ncbi.nlm.nih.gov/26223520), licensed under a CC-BY license. Not internally tested by Novus Biologicals.	
Anti-S100a9 Ab ameliorates inflammatory response of dextran sulfate sodium (DSS)-induced colitis in mice. (A) 6 days after DSS treatment, representative H&E-stained colon sections were shown (upper panels: original magnification 40×, scale bar: 200 μm; lower panels: original magnification 100×, scale bar: 100 μm). (B) Colon inflammation, ulceration, and crypt damage were scored individually, and composite total score was scored. n = 5 per group. (C) Isolated lymphoid follicles (ILFs) area was measured at day 6. Representative TUNEL staining (D) and ethynyl-2′-deoxyuridine (EdU) staining (E) of normal mice and DSS-induced mice, which were treated with IgG Ab or anti-S100a9 Ab on day 6. The percent of positive cells was measured. At least six fields were counted per mouse. Scale bar, 100 μm. Image collected and cropped by CiteAb from the following open publication (https://pubmed.ncbi.nlm.nih.gov/29326691), licensed under a CC-BY license. Not internally tested by Novus Biologicals.	

Publications

Ancey PB, Contat C, Boivin G et al. GLUT1 Expression in Tumor-Associated Neutrophils Promotes Lung Cancer Growth and Resistance to Radiotherapy Cancer Research 2021-05-01 [PMID: 33753374]

Manzanares LD, David J, Ren X et al. Atovaquone attenuates experimental colitis by reducing neutrophil infiltration of colonic mucosa Frontiers in Pharmacology 2022-10-14 [PMID: 36313299] (IHC)

Fong LY, Huebner K, Jing R et al. Zinc treatment reverses and anti-Zn-regulated miRs suppress esophageal carcinomas in vivo Proceedings of the National Academy of Sciences of the United States of America 2023-05-16 [PMID: 37155893]

Turchi R, Tortolici F, Benvenuto M et al. Low Sulfur Amino Acid, High Polyunsaturated Fatty Acid Diet Inhibits Breast Cancer Growth International Journal of Molecular Sciences 2022-12-23 (IHC-Fr, Mouse)

Yoshikawa T, Takeichi T, Hirabayashi T et al. IL-17 axis is a significant driver of skin inflammation in Card14 mutant pityriasis rubra pilaris model mice Research Square 2023-02-02 (IHC, Mouse)

Bui TM Dissecting the Diverse Phenotypes and Pathological Impacts of Neutrophils in Colitis-to-CRC Progression Thesis 2022-01-01

Zhang X, Wei L, et al. Suppression Colitis and Colitis-Associated Colon Cancer by Anti-S100a9 Antibody in Mice. Front Immunol 2018-01-13 [PMID: 29326691] (IF/IHC, Mouse)

Li Z, Zhang X, Liu C Et al. Macrophage-Biomimetic Nanoparticles Ameliorate Ulcerative Colitis through Reducing Inflammatory Factors Expression Journal of innate immunity 2021-11-01 [PMID: 34724662] (IHC-P, Mouse)

Bui TM, Butin-Israeli V, Wiesolek HL et al. Neutrophils Alter DNA Repair Landscape to Impact Survival and Shape Distinct Therapeutic Phenotypes of Colorectal Cancer Gastroenterology 2021-03-19 [PMID: 33753103] (Mouse)

Kwak T, Wang F, Deng H et al. Distinct Populations of Immune-Suppressive Macrophages Differentiate from Monocytic Myeloid-Derived Suppressor Cells in Cancer Cell reports 2020-12-29 [PMID: 33378668]

Mabuchi S, Komura N, Sasano T et Al. Pretreatment tumor-related leukocytosis misleads positron emission tomography-computed tomography during lymph node staging in gynecological malignancies Nat Commun 2020-03-13 [PMID: 32170086] (IF/IHC, Human)

Duan X, Liu X, Liu N et al. Inhibition of keratinocyte necroptosis mediated by RIPK1/RIPK3/MLKL provides a protective effect against psoriatic inflammation Cell Death Dis 2020-02-19 [PMID: 32075957] (WB, Human, Mouse)

More publications at http://www.novusbio.com/NB110-89726

Procedures

Western Blot protocol for S100A9 Antibody (NB110-89726)

Western Blot Protocol

1. Perform SDS-PAGE (4-12% MES) on samples to be analyzed, loading 40 ug of total protein per lane.
2. Transfer proteins to Nitrocellulose according to the instructions provided by the manufacturer of the transfer apparatus.
3. Rinse membrane with dH2O and then stain the blot using Ponceau S for 1-2 minutes to access the transfer of proteins onto the nitrocellulose membrane. Rinse the blot in water to remove excess stain and mark the lane locations and locations of molecular weight markers using a pencil.
4. Rinse the blot in TBS for approximately 5 minutes.
5. Block the membrane using 5% BSA in TBS + Tween, 1 hour at RT.
6. Rinse the membrane in dH2O and then wash the membrane in wash buffer [TBS + 0.1% Tween] 3 times for 10 minutes each.
7. Dilute the rabbit anti-S100A9 primary antibody (NB 110-89726) in blocking buffer and incubate 1 hour at room temperature.
8. Rinse the membrane in dH2O and then wash the membrane in wash buffer [TBS + 0.1% Tween] 3 times for 10 minutes each.
9. Apply the diluted rabbit-IgG HRP-conjugated secondary antibody in blocking buffer (as per manufacturers instructions) and incubate 1 hour at room temperature.
10. Wash the blot in wash buffer [TBS + 0.1% Tween] 3 times for 10 minutes each (this step can be repeated as required to reduce background).
11. Apply the detection reagent of choice in accordance with the manufacturers instructions (Pierce ECL).

Note: Tween-20 can be added to the blocking or antibody dilution buffer at a final concentration of 0.05-0.2%, provided it does not interfere with antibody-antigen binding.

Novus Biologicals USA
10730 E. Briarwood Avenue
Centennial, CO 80112
USA
Phone: 303.730.1950
Toll Free: 1.888.506.6887
Fax: 303.730.1966
nb-customerservice@bio-techne.com

Bio-Techne Canada
21 Canmotor Ave
Toronto, ON M8Z 4E6
Canada
Phone: 905.827.6400
Toll Free: 855.668.8722
Fax: 905.827.6402
canada.inquires@bio-techne.com

Bio-Techne Ltd
19 Barton Lane
Abingdon Science Park
Abingdon, OX14 3NB, United Kingdom
Phone: (44) (0) 1235 529449
Free Phone: 0800 37 34 15
Fax: (44) (0) 1235 533420
info.EMEA@bio-techne.com

General Contact Information
www.novusbio.com
Technical Support: nb-technical@bio-techne.com
Orders: nb-customerservice@bio-techne.com
General: novus@novusbio.com

Products Related to NB110-89726

NBL1-15660	S100A9 Overexpression Lysate
HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control

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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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