Product Datasheet

F4/80 Antibody (Cl:A3-1) - BSA Free
NB600-404

Unit Size: 0.125 mg

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

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Reviews: 2 Publications: 103

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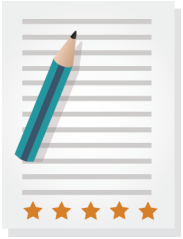
Updated 2/21/2025 v.20.1



NB600-404

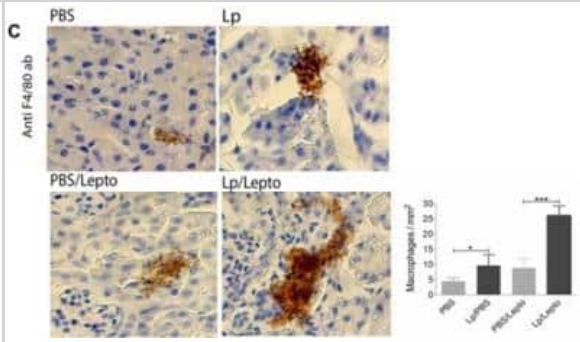
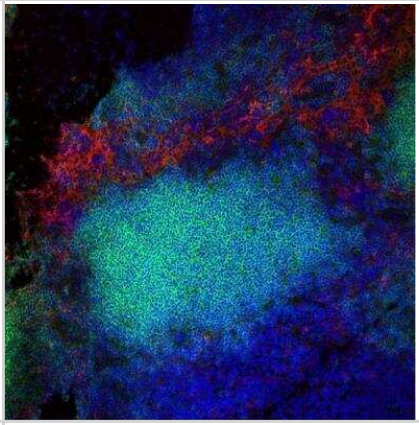
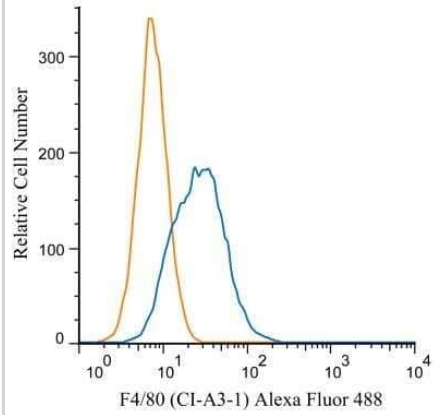
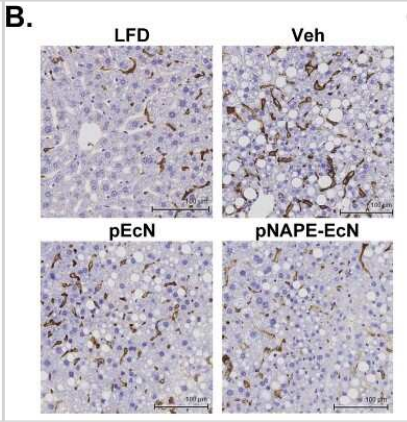
F4/80 Antibody (Cl:A3-1) - BSA Free

Product Information	
Unit Size	0.125 mg
Concentration	1.0 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	Cl:A3-1
Preservative	0.09% Sodium Azide
Isotype	IgG2b
Purity	Protein G purified
Buffer	PBS
Target Molecular Weight	160 kDa

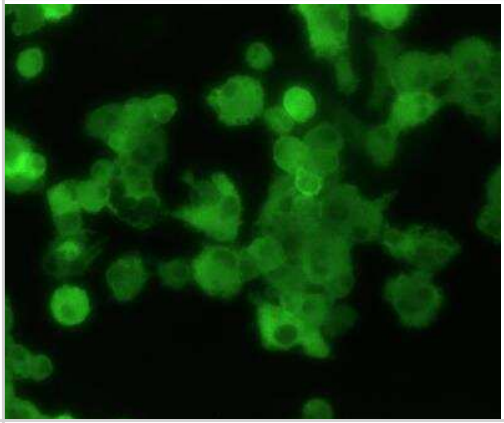
Product Description	
Host	Rat
Gene ID	13733
Gene Symbol	Adgre1
Species	Mouse
Marker	Macrophage Marker
Immunogen	Thioglycollate stimulated peritoneal macrophages from C57BL/6 mice

Product Application Details	
Applications	Western Blot, Flow Cytometry, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin, Immunoprecipitation, Radioimmunoassay
Recommended Dilutions	Western Blot 1:100-1:2000, Flow Cytometry 1:50-1:100, Immunohistochemistry 1:10-1:500, Immunocytochemistry/ Immunofluorescence 1:10-1:500, Immunoprecipitation 1:10-1:500RadioImmunoassay 1:100-1:2000, Immunohistochemistry-Paraffin 1:10-1:500, Immunohistochemistry-Frozen 1:10-1:500, Radioimmunoassay 1:100-1:2000
Application Notes	This product requires pretreatment of paraffin sections prior to staining. Proteinase K is recommended for tissues fixed for less than 24 hours. Citrate buffer pH 6.0 is recommended for tissues fixed for more than 24 hours. E. coli reactivity reported in scientific literature (PMID:31181736).

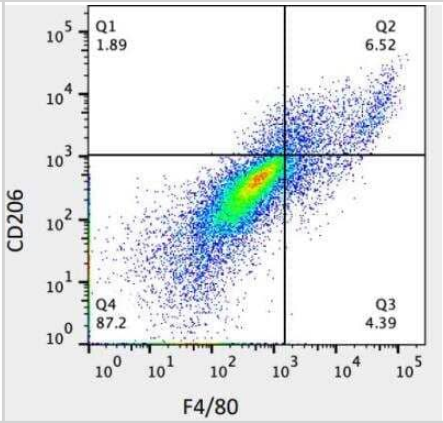
Images

Immunohistochemistry: F4/80 Antibody (CI-A3-1) [NB600-404] - Oral treatment with L plantarum leads to recruitment of myeloid cells in kidney. Immunostaining of kidney sections from groups of treated mice, in the presence or absence of Leptospira infection using various leukocyte markers. We determined the number of F4/80+ T cells per millimeter squared of kidney. Data are mean SEM of 4-5 mice per group. Scale bar represents 400x. Statistics by two-tailed paired t-test *p < 0.05, *** p < 0.001. Data is representative of one of two experiments. Image collected and cropped by CiteAb from the following publication (doi.org/10.1371/journal.pntd.0005870) licensed under a CC-BY license.	
Immunocytochemistry/Immunofluorescence: F4/80 Antibody (CI-A3-1) [NB600-404] - Lymph node stained for macrophages, red and B cells CD79b, green; nuclei are stained with DAPI, blue.	
Flow Cytometry: F4/80 Antibody (CI-A3-1) [NB600-404] - A surface stain was performed on RAW 246.7 cells with F4/80 antibody (CI-A3-1) NB600-404AF488 (blue) and a matched isotype control (orange). Cells were incubated in an antibody dilution of 10 ug/mL for 20 minutes at room temperature. Both antibodies were conjugated to Alexa Fluor 488.	
Immunohistochemistry-Paraffin: F4/80 Antibody (CI-A3-1) [NB600-404] - pNAPE-EcN reduces diet-induced hepatic inflammation. Representative images of liver sections immunostained for F4/80. Image collected and cropped by CiteAb from the following publication (https://www.nature.com/articles/s41598-018-37373-1), licensed under a CC-BY license.	

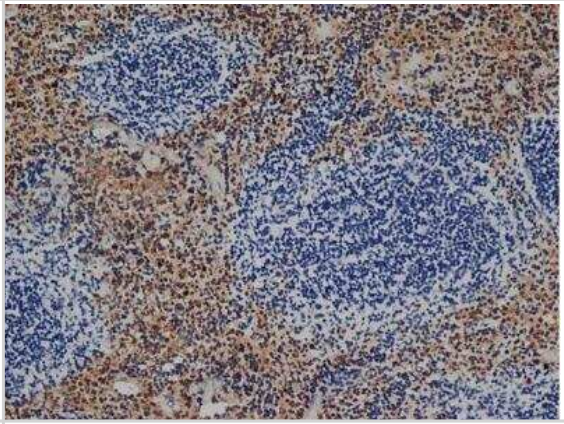
Immunocytochemistry/Immunofluorescence: F4/80 Antibody (CI-A3-1) [NB600-404] - Analysis of monocytes cultured in M-CSF using F4/80 antibody. Primary antibody dilution: 1:200. Overnight incubation in RT. Image from verified customer review.



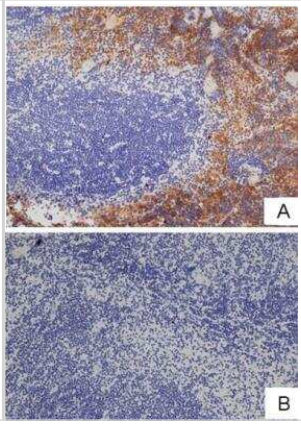
Flow Cytometry: F4/80 Antibody (CI-A3-1) - BSA Free [NB600-404] - Surface staining of F4/80 in CT26 colorectal carcinoma tumor model. Using Allophycocyanin conjugated version of the antibody (NB600-404APC). Image from verified customer review

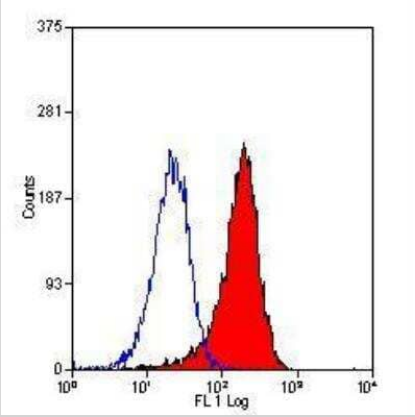
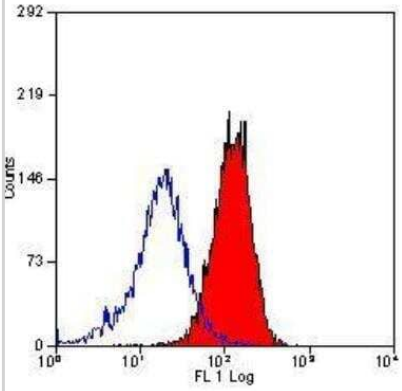
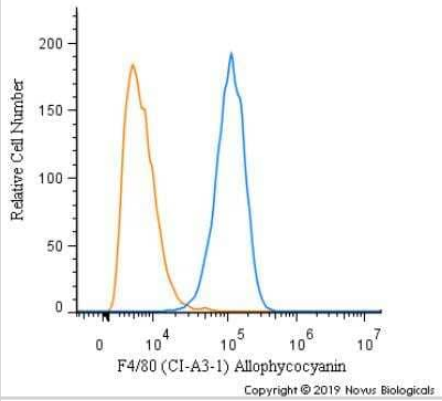
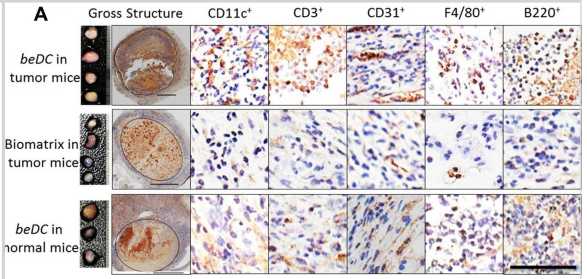


Immunohistochemistry-Frozen: F4/80 Antibody (CI-A3-1) [NB600-404] - Frozen mouse spleen with F4/80 anti-mouse antibody.



Immunohistochemistry-Frozen: F4/80 Antibody (CI-A3-1) [NB600-404] - Mouse spleen stained with A: Rat anti Mouse. B: CI-A3-1 clone preincubated with 2 molar excess of human anti Idiotypic.



Flow Cytometry: F4/80 Antibody (CI-A3-1) [NB600-404] - Staining of J774 cells with F4/80 antibody.	
Flow Cytometry: F4/80 Antibody (CI-A3-1) [NB600-404] - Staining of mouse peritoneal macrophages with clone CI-A3-1 F4/80 antibody.	
Flow Cytometry: F4/80 Antibody (CI-A3-1) [NB600-404]	
Immunohistochemistry: F4/80 Antibody (Cl:A3-1) [NB600-404] - Lymphocyte interaction inside the DC harboring scaffoldsDC scaffolds (beDC) or scaffolds only, placed in tumor bearing mice or DC-scaffold placed in normal mice were recovered two weeks post-implantation & processed for immunohistochemistry to demonstrate various cell types. (A) Relative size of the biomatrices harvested from various mice groups as depicted in the figure (far left panel). n = 3–5. The dotted line in 'gross specimen' differentiates the biomatrix from the reactive host-tissue. Representative images of biomatrix sections stained by the respective antibodies as indicated in the figure. The bar in the 'gross structure' is equivalent to 1 mm, whereas for other panels is equal to 100 µm. (B) Snapshots from Supplementary Movie S2 showing lymphocyte (green) movement & interaction with DCs (red) inside the biomatrix. The start point of the observation was set as the zero time point. (C) Lymphocyte division (white arrows) inside the biomatrix in the vicinity of DC (red). Representative snapshot from Supplementary Movie S3. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/27223090), licensed under a CC-BY license. Not internally tested by Novus Biologicals.	

Publications

Thangavel H, Dhanyalayam D, Kim M, Lizardo K et Al. Adipocyte-released adipomes in Chagas cardiomyopathy: Impact on cardiac metabolic and immune regulation iScience 2024-04-25 [PMID: 38660407]

Giuseppe Angelini, Emanuele Capra, Francesca Rossi, Giada Mura, Marielle Saclier, Valentina Taglietti, Gabriele Rovetta, Raffaele Epis, Giorgia Careccia, Chiara Bonfanti, Graziella Messina MEK-inhibitors decrease Nfix in muscular dystrophy but induce unexpected calcifications, partially rescued with Cyanidin diet iScience 2023-12-10 [PMID: 38205246]

Alexander KA, Tseng HW, Lao HW, Girard D et Al. A glucocorticoid spike derails muscle repair to heterotopic ossification after spinal cord injury Cell Rep Med 2024-12-10 [PMID: 39657663]

Good CJ, Butrico CE, Colley ME, Emmerson LN et Al. Uncovering lipid dynamics in Staphylococcus aureus osteomyelitis using multimodal imaging mass spectrometry Cell Chem Biol 2024-10-10 [PMID: 39389064]

Chen L, Qin Y, Guo T et Al. HAP40 modulates mutant Huntingtin aggregation and toxicity in Huntington's disease mice Cell Death Dis 2024-05-14 [PMID: 38744826]

Xiao T, Liang J, Li M et Al. ATG5-mediated keratinocyte ferroptosis promotes M1 polarization of macrophages to aggravate UVB-induced skin inflammation J Photochem Photobiol B 2024-07-14 [PMID: 38833786]

Chiang CH, Lan TY, Hsieh JH et Al. Diosgenin Reduces Acute Kidney Injury and Ameliorates the Progression to Chronic Kidney Disease by Modifying the NOX4/p65 Signaling Pathways J Agric Food Chem 2024-07-29 [PMID: 39074384]

Dailey KM, Small JM, Pullan JE et al. An intravenous pancreatic cancer therapeutic: Characterization of CRISPR/Cas9n-modified Clostridium novyi-Non Toxic PloS one 2023-11-14 [PMID: 37963142] (IHC-P, Mouse)

Xiao T, Liang J, Li M et al. ATG5-Mediated Keratinocyte Ferroptosis Promotes M1 Polarization Of Macrophages to Aggravate UVB-Induced Skin Inflammation SSRN 2023-10-04 (IHC, Mouse)

Ayturk UM, Scollan JP, Goz Ayturk D et al. Single-Cell RNA Sequencing of Calvarial and Long-Bone Endocortical Cells Journal of Bone and Mineral Research 2020-10-01 [PMID: 32427356] (Immunocytochemistry/ Immunofluorescence)

Ribeiro A, Dobosz E, Krill M et al. Macrophage-Specific MCPIP1/Regnase-1 Attenuates Kidney Ischemia-Reperfusion Injury by Shaping the Local Inflammatory Response and Tissue Regeneration Cells 2022-01-24 [PMID: 35159206] (ELISA)

Chang TT, Yang HY, Chen C, Chen JW. CCL4 Inhibition in Atherosclerosis: Effects on Plaque Stability, Endothelial Cell Adhesiveness, and Macrophages Activation International Journal of Molecular Sciences 2020-09-08 [PMID: 32911750]

More publications at http://www.novusbio.com/NB600-404

Procedures

Western Blot protocol for F4/80 Antibody (NB600-404)

Western Blot Protocol

1. Perform SDS-PAGE on samples to be analyzed, loading 30 ug of total protein per lane.
2. Transfer proteins to membrane according to the instructions provided by the manufacturer of the membrane and transfer apparatus.
3. Stain according to standard Ponceau S procedure (or similar product) to assess transfer success, and mark molecular weight standards where appropriate.
4. Rinse the blot.
5. Block the membrane using standard blocking buffer for at least 1 hour.
6. Wash the membrane in wash buffer three times for 10 minutes each.
7. Dilute primary antibody in blocking buffer and incubate 1 hour at room temperature.
8. Wash the membrane in wash buffer three times for 10 minutes each.
9. Apply the diluted 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 three 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.

**Note: Tween-20 can be added to the blocking or antibody dilution buffer at a final concentration of 0.05-0.2%.

Immunocytochemistry/Immunofluorescence Protocol for F4/80 Antibody (NB600-404)
Immunocytochemistry Protocol

Culture cells to appropriate density in 35 mm culture dishes or 6-well plates.

1. Remove culture medium and add 10% formalin to the dish. Fix at room temperature for 30 minutes.
2. Remove the formalin and add ice cold methanol. Incubate for 5-10 minutes.
3. Remove methanol and add washing solution (i.e. PBS). Be sure to not let the specimen dry out. Wash three times for 10 minutes.
4. To block nonspecific antibody binding incubate in 10% normal goat serum from 1 hour to overnight at room temperature.
5. Add primary antibody at appropriate dilution and incubate at room temperature from 2 hours to overnight at room temperature.
6. Remove primary antibody and replace with washing solution. Wash three times for 10 minutes.
7. Add secondary antibody at appropriate dilution. Incubate for 1 hour at room temperature.
8. Remove antibody and replace with wash solution, then wash for 10 minutes. Add Hoechst 33258 to wash solution at 1:25,0000 and incubate for 10 minutes. Wash a third time for 10 minutes.
9. Cells can be viewed directly after washing. The plates can also be stored in PBS containing Azide covered in Parafilm (TM). Cells can also be cover-slipped using Fluoromount, with appropriate sealing.

*The above information is only intended as a guide. The researcher should determine what protocol best meets their needs. Please follow safe laboratory procedures.

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Products Related to NB600-404

HAF005	Goat anti-Rat IgG Secondary Antibody [HRP]
F0105B	Goat anti-Rat IgG Secondary Antibody [Phycoerythrin]
DDXCR03	Rat IgG2b Isotype Control
NB600-404APC	F4/80 Antibody (Cl:A3-1) [Allophycocyanin]

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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