Product Datasheet

AIF-1/Iba1 Antibody
NB100-2833

Unit Size: 0.1 mg

Store at -20C. Avoid freeze-thaw cycles.

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Publications: 11

Protocols, Publications, Related Products, Reviews, Research Tools and Images at:
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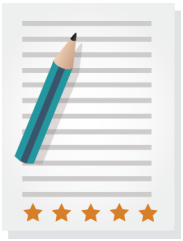
Updated 9/9/2025 v.20.1



NB100-2833

AIF-1/Iba1 Antibody

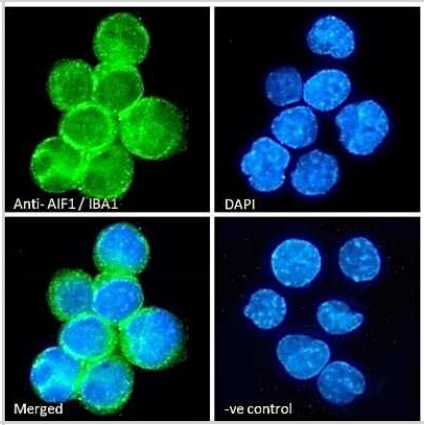
Product Information	
Unit Size	0.1 mg
Concentration	0.5 mg/ml
Storage	Store at -20C. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.02% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	Tris saline (20 mM Tris pH 7.3, 150 mM NaCl), 0.5% BSA
Target Molecular Weight	16.7 kDa

Product Description	
Description	Novus Biologicals Goat AIF-1/Iba1 Antibody (NB100-2833) is a polyclonal antibody validated for use in IHC, WB, ELISA, Flow and ICC/IF. Anti-AIF-1/Iba1 Antibody: Cited in 10 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Goat
Gene ID	199
Gene Symbol	AIF1
Species	Human, Mouse
Reactivity Notes	Use in Mouse reported in scientific literature (PMID:31560162).
Marker	pan-Microglia Marker
Specificity/Sensitivity	This AIF-1/Iba1 Antibody is expected to recognize isoform 3 (NP_001614.3) only.
Immunogen	This AIF-1/Iba1 Antibody was developed against a peptide with sequence C-NKQFLDDPKYSSDED corresponding to internal region according to NP_001614.3.

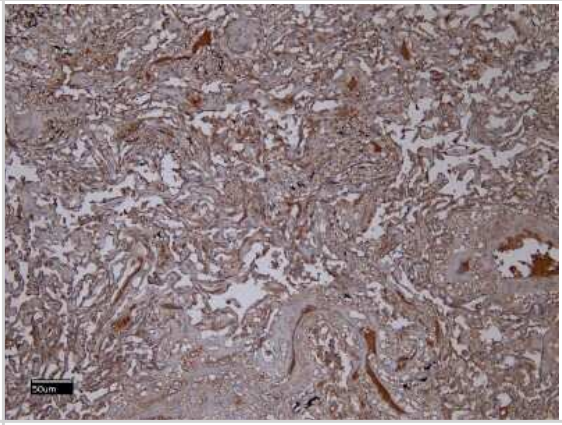
Product Application Details	
Applications	Immunohistochemistry-Paraffin, Flow Cytometry, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Peptide ELISA
Recommended Dilutions	Flow Cytometry 10 ug/mL, Immunohistochemistry, Immunocytochemistry/ Immunofluorescence 10 ug/mL, Immunohistochemistry-Paraffin 6 ug/ml, Peptide ELISA Detection limit 1:128000
Application Notes	Use in Immunohistochemistry reported in scientific literature (PMID:31560162).

Images

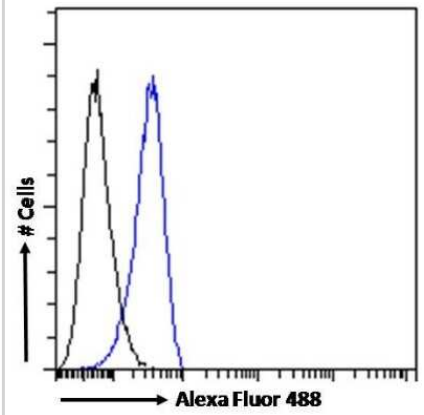
Immunocytochemistry/Immunofluorescence: AIF-1/Iba1 Antibody [NB100-2833] - Immunofluorescence analysis of paraformaldehyde fixed U937 cells immobilized on Shi-fix coverslip, permeabilized with 0.15% Triton. Primary incubation 1hr (10ug/ml) followed by Alexa Fluor 488 secondary antibody (2ug/ml), showing cytoplasmic staining. The nuclear stain is DAPI (blue). Negative control: Unimmunized goat IgG (10ug/ml) followed by Alexa Fluor 488 secondary antibody (2ug/ml).



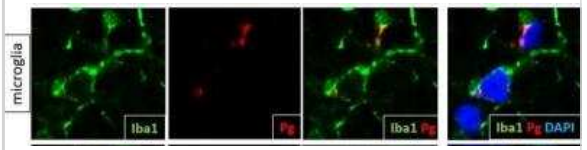
Immunohistochemistry-Paraffin: AIF-1/Iba1 Antibody [NB100-2833] - Staining (6ug/ml) of paraffin embedded Human Lung. Heat induced antigen retrieval with citrate buffer pH 6, HRP-Staining.



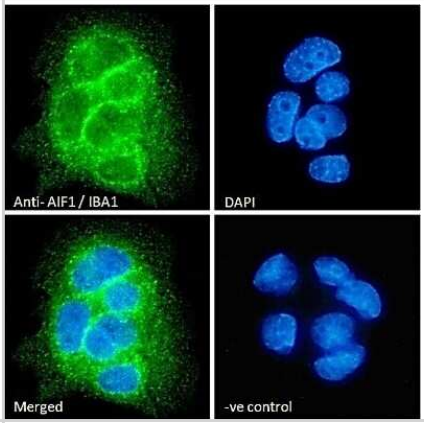
Flow Cytometry: AIF-1/Iba1 Antibody [NB100-2833] - Flow cytometric analysis of paraformaldehyde fixed K562 cells (blue line), permeabilized with 0.5% Triton. Primary incubation 1hr (10ug/ml) followed by Alexa Fluor 488 secondary antibody (1ug/ml). IgG control: Unimmunized goat IgG (black line) followed by Alexa Fluor 488 secondary antibody.



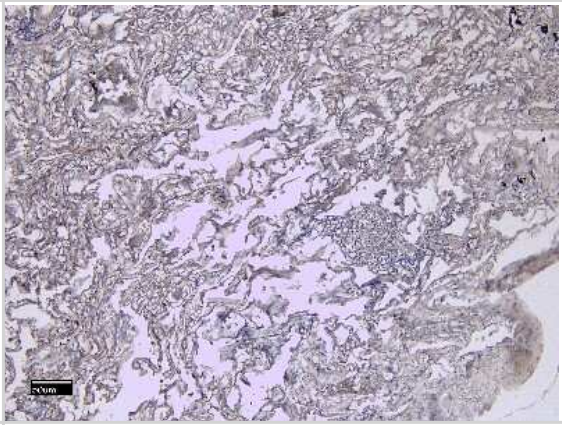
Immunocytochemistry/Immunofluorescence: AIF-1/Iba1 Antibody [NB100-2833] - Pg/gingipain is present intracellularly in astrocytes, microglia and neurons in the hippocampus of experimental mice.Green: astrocytes (top panels), microglia (middle panels), and neurons (bottom panels). Red: Pg/gingipain. Blue: DAPI. Representative of N = 4 (GFAP), 3 (Iba1) and 4 (NeuN) experimental mice. Image collected and cropped by CiteAb from the following publication (https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0204941), licensed under a CC-BY license.



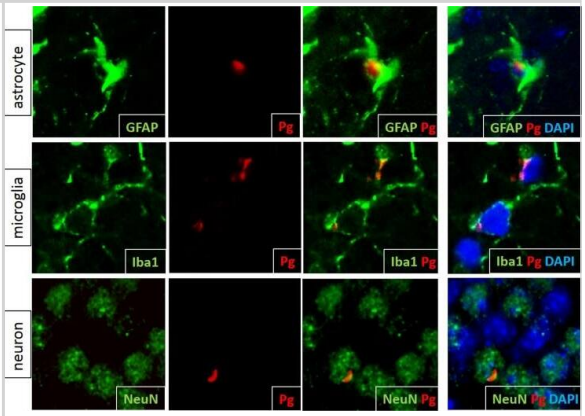
Immunocytochemistry/Immunofluorescence: AIF-1/Iba1 Antibody [NB100-2833] - Immunofluorescence analysis of paraformaldehyde fixed CaCo-2 cells immobilized on Shi-fix coverslip, permeabilized with 0.15% Triton. Primary incubation 1hr (10ug/ml) followed by Alexa Fluor 488 secondary antibody (2ug/ml), showing cytoplasmic staining. The nuclear stain is DAPI (blue). Negative control: Unimmunized goat IgG (10ug/ml) followed by Alexa Fluor 488 secondary antibody (2ug/ml).



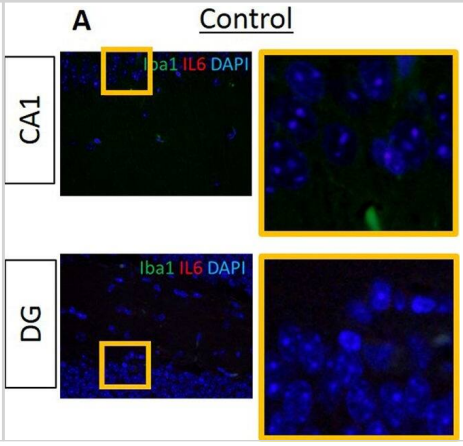
Immunohistochemistry-Paraffin: AIF-1/Iba1 Antibody [NB100-2833] - Negative Control showing staining of paraffin embedded Human Lung, with no primary antibody.

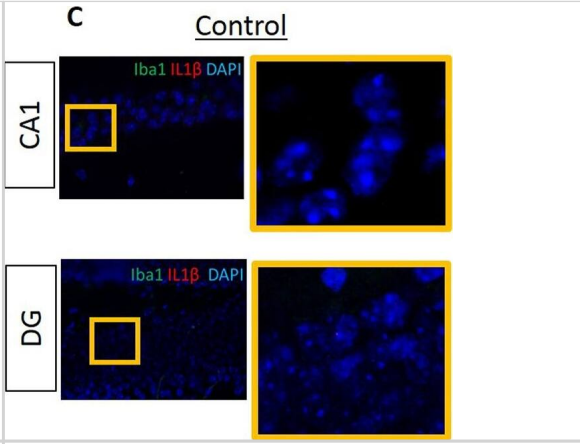
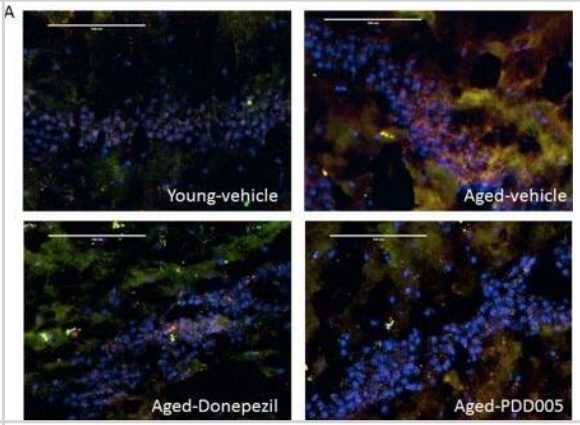
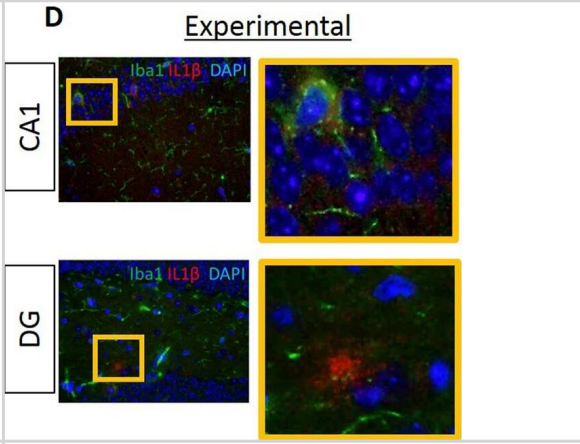
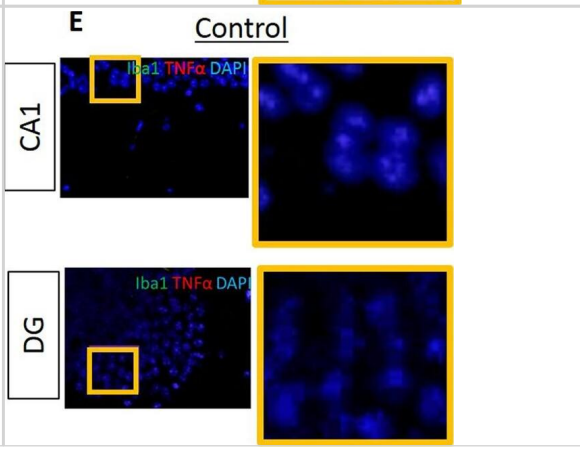


Immunocytochemistry/ Immunofluorescence: AIF-1/Iba1 Antibody [NB100-2833] - Pg/gingipain is present intracellularly in astrocytes, microglia & neurons in the hippocampus of experimental mice.Green: astrocytes (top panels), microglia (middle panels), & neurons (bottom panels). Red: Pg/gingipain. Blue: DAPI. Representative of N = 4 (GFAP), 3 (Iba1) & 4 (NeuN) experimental mice. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/30281647), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Immunocytochemistry/ Immunofluorescence: AIF-1/Iba1 Antibody [NB100-2833] - Proinflammatory cytokines IL6, IL1β & TNFα are evident in the hippocampus of experimental but not in control mice.Data from IF microscopy & RT-PCR. (A-F) Results from IF microscopy. IL6 expression in control (A) & experimental (B) mice, IL1β expression in control (C) & experimental (D) mice & TNFα expression in control (E) & experimental (F) mice. N = 3 mice/group. (G-I) Gene expression of cytokines was detected by RT-PCR (G, H, I). In all cases, there is significantly higher gene expression of all three cytokines in experimental compared with control group (G, H, I). Green: Iba1, Red: cytokines, Blue: DAPI. N = 5 mice/group. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/30281647), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Immunocytochemistry/ Immunofluorescence: AIF-1/Iba1 Antibody [NB100-2833] - Proinflammatory cytokines IL6, IL1β & TNFα are evident in the hippocampus of experimental but not in control mice.Data from IF microscopy & RT-PCR. (A-F) Results from IF microscopy. IL6 expression in control (A) & experimental (B) mice, IL1β expression in control (C) & experimental (D) mice & TNFα expression in control (E) & experimental (F) mice. N = 3 mice/group. (G-I) Gene expression of cytokines was detected by RT-PCR (G, H, I). In all cases, there is significantly higher gene expression of all three cytokines in experimental compared with control group (G, H, I). Green: Iba1, Red: cytokines, Blue: DAPI. N = 5 mice/group. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/30281647), licensed under a CC-BY license. Not internally tested by Novus Biologicals.	
Immunocytochemistry/ Immunofluorescence: AIF-1/Iba1 Antibody [NB100-2833] - IL-1 β synthesis, & microglial activation modulation in PDD005-treated aged mice. (A) Images showing IL-1β (green fluorescence), iba-1 (red fluorescence) expression. Yellow = Overlay; Blue = nuclei; SGZ region of mouse brain. 40X magnification, scale bar = 100 µm. (B) Graphs representing the average relative fluorescence of Iba-1 in SGZ. Significant differences determined by using one-way ANOVA with Tukey's test. *P < 0.050, **P < 0.01 & ***P < 0.001 compared with aged-vehicle. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/31980673), licensed under a CC-BY license. Not internally tested by Novus Biologicals.	
Immunocytochemistry/ Immunofluorescence: AIF-1/Iba1 Antibody [NB100-2833] - Proinflammatory cytokines IL6, IL1β & TNFα are evident in the hippocampus of experimental but not in control mice.Data from IF microscopy & RT-PCR. (A-F) Results from IF microscopy. IL6 expression in control (A) & experimental (B) mice, IL1β expression in control (C) & experimental (D) mice & TNFα expression in control (E) & experimental (F) mice. N = 3 mice/group. (G-I) Gene expression of cytokines was detected by RT-PCR (G, H, I). In all cases, there is significantly higher gene expression of all three cytokines in experimental compared with control group (G, H, I). Green: Iba1, Red: cytokines, Blue: DAPI. N = 5 mice/group. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/30281647), licensed under a CC-BY license. Not internally tested by Novus Biologicals.	
Immunocytochemistry/ Immunofluorescence: AIF-1/Iba1 Antibody [NB100-2833] - Proinflammatory cytokines IL6, IL1β & TNFα are evident in the hippocampus of experimental but not in control mice.Data from IF microscopy & RT-PCR. (A-F) Results from IF microscopy. IL6 expression in control (A) & experimental (B) mice, IL1β expression in control (C) & experimental (D) mice & TNFα expression in control (E) & experimental (F) mice. N = 3 mice/group. (G-I) Gene expression of cytokines was detected by RT-PCR (G, H, I). In all cases, there is significantly higher gene expression of all three cytokines in experimental compared with control group (G, H, I). Green: Iba1, Red: cytokines, Blue: DAPI. N = 5 mice/group. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/30281647), licensed under a CC-BY license. Not internally tested by Novus Biologicals.	

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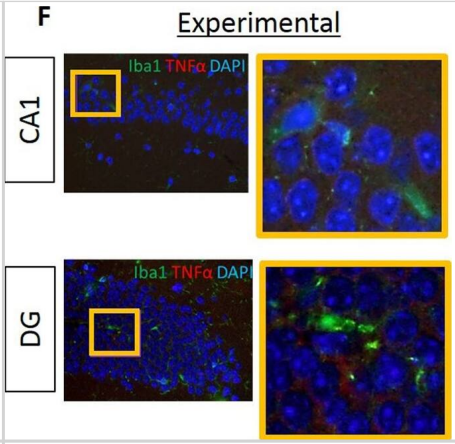

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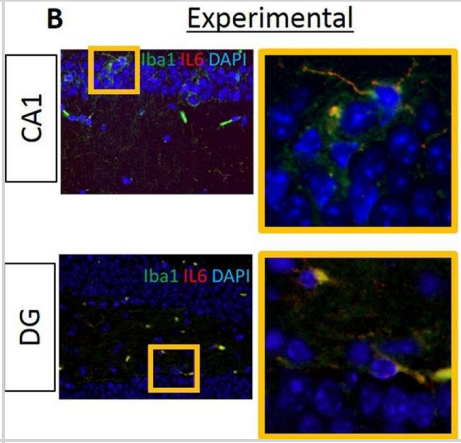
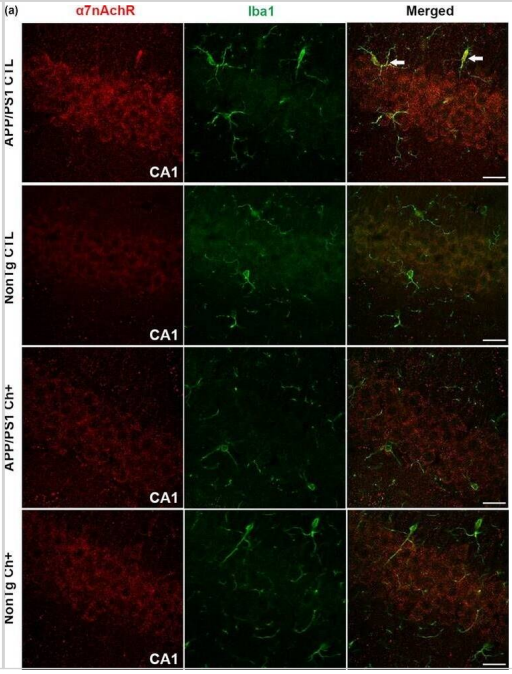
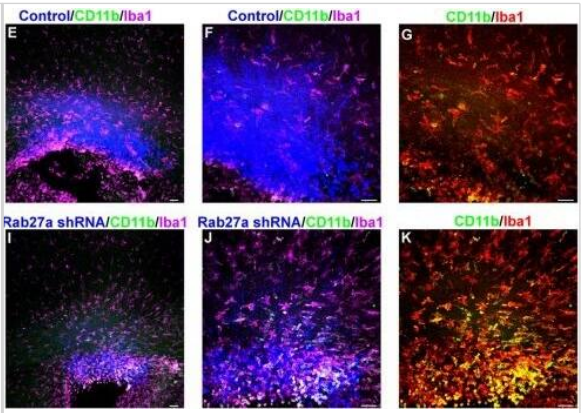


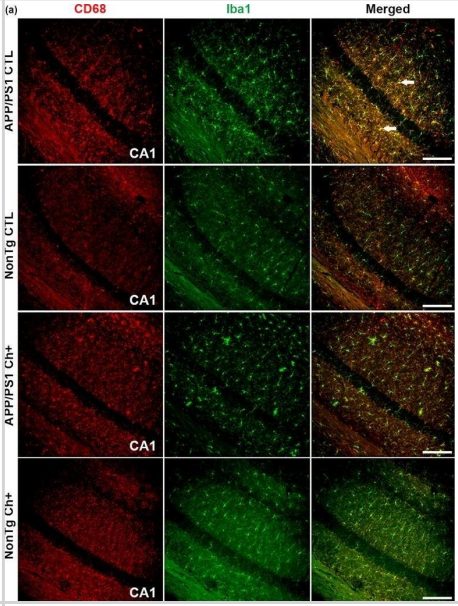
Immunocytochemistry/ Immunofluorescence: AIF-1/Iba1 Antibody [NB100-2833] - Lifelong choline supplementation alters the expression of the alpha7 nicotinic acetylcholine receptor (α7nAchR) within microglia. (a) Photomicrographs depicting the Cornus Ammonis 1 (CA1) of the hippocampus from APP/PS1 & NonTg mice fluorescently stained for α7nAchR & Iba1. Images taken at 40X; scale bar = 25 µm (n = 6 mice/group). (b) Quantitative analysis reveals a significant main effect of genotype, where the APP/PS1 mice have a significantly higher intensity of yellow pixels of α7nAchR/Iba1 colocalization than the NonTg mice ($p < .01$). Additionally, we find a significant main effect of diet, where the Ch+ groups show a significant reduction in α7nAchR/Iba1 colocalization than the CTL groups ($p < .05$). A genotype by diet interaction was found, where the APP/PS1 Ch+ mice show a significant reduction of α7nR/Iba1 colocalization compared to the CTL counterparts ($p < .001$). The center line represents the median value, the limits represent the 25th & 75th percentile, & the whiskers represent the minimum & maximum value of the distribution. **p < .01, ***p < .001 Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/31560162), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



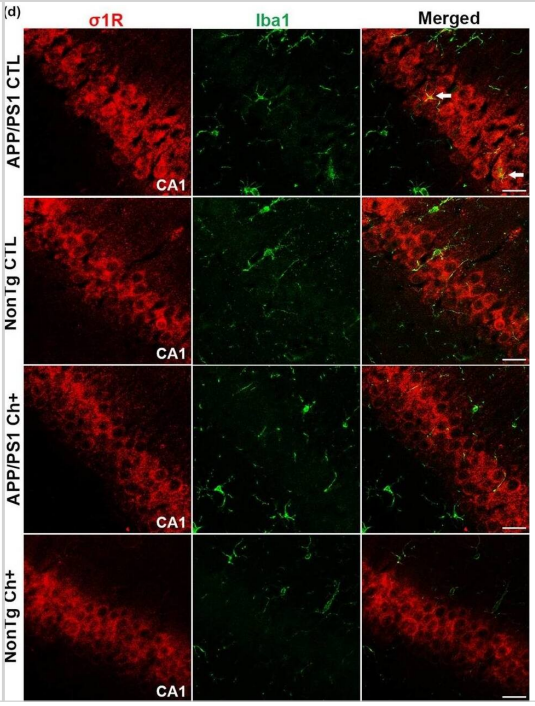
Immunocytochemistry/ Immunofluorescence: AIF-1/Iba1 Antibody [NB100-2833] - (A–D) Images of coronal brain sections showing DiI (red) labeled EVs taken up by IBA1 (blue) & CD11b (green) positive microglia. (E,F) Tomato & control plasmid (blue) dorsal SVZ electroporations stained for CD11b (green) & IBA1 (magenta) at P7, 10x (E), 20x (F). (G,H) 20x magnification of E showing CD11b (green) & IBA1 (red) (G) or CD11b (H). (I,J) Tomato & Rab27a shRNA plasmid (blue) dorsal SVZ electroporations stained for CD11b (green) & IBA1 (magenta) at P7, 10x (I), 20x (J). (K,L) 20x magnification of I showing CD11b (green) & IBA1 (red) (K) or CD11b (L). (M) Western blot of Rab27a following shRNA mediated knockdown. (N) Images of coronal section stained for Rab27a (green) following control or Rab27a shRNA & tomato (magenta) co-electroporation at P0 & sacrificed 48 hrs later. (O) Quantification of CD11b positive microglia at P2 & P7 following control or Rab27a shRNA electroporation. Data are represented as mean ± SEM. ****p < 0.0001 A, E, I scale bar, 100 µm. B–D, F–H, J–L, N scale bar, 50 µm. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/30816224), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



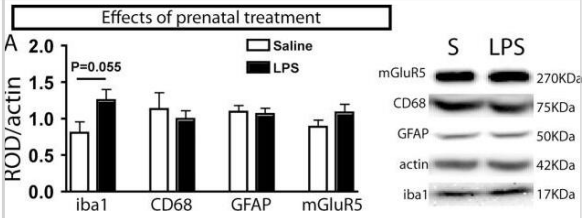
Immunocytochemistry/ Immunofluorescence: AIF-1/Iba1 Antibody [NB100-2833] - Lifelong choline supplementation reduces activated microglia. (a) Photomicrographs depicting the Cornus Ammonis 1 (CA1) of the hippocampus from APP/PS1 & NonTg mice fluorescently stained for CD68 & Iba1. Images taken at 10X; Scale bar = 150 µm (n = 6 mice/group). Arrows illustrate colocalization of CD68/Iba1. (b) Quantitative analysis reveals a significant main effect of genotype, where the APP/PS1 mice have a significantly higher intensity of yellow pixels of CD68/Iba1 colocalization than the NonTg mice (p < .05). Additionally, we find a significant main effect of diet, where the Ch+ groups show a significant reduction in CD68/Iba1 colocalization than the CTL groups (p < .001). Data are presented as box plots. The center line represents the median value, the limits represent the 25th & 75th percentile, & the whiskers represent the minimum & maximum value of the distribution. *p < .05, ***p < .001 Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/31560162), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Immunocytochemistry/ Immunofluorescence: AIF-1/Iba1 Antibody [NB100-2833] - Lifelong choline supplementation alters the expression of the Sigma□1 receptor (σ1R) within microglia. (a□b) Representative Western blot of σ1R levels. Quantitative analysis of σ1R protein levels reveals a significant reduction with Ch+ (p < .05; n = 5/APP group; n = 4/NonTg group). (c□d) Quantitative analysis reveals a significant main effect of genotype, where the APP/PS1 mice have a significantly higher intensity of yellow pixels of σ1R/Iba1 colocalization than the NonTg mice (p < .05, n = 6 APP/PS1 CTL, n = 5 APP/PS1 Ch+, n = 6 NonTg CTL, n = 6 NonTg Ch+). Additionally, we find a significant genotype by diet interaction where the APP/PS1 Ch+ mice show a significant reduction in σ1R/Iba1 colocalization than the APP/PS1 CTL mice (p < .001). Photomicrographs depicting the Cornus Ammonis 1 (CA1) of the hippocampus from APP/PS1 & NonTg mice fluorescently stained for the σ1R & Iba1; images taken at 40×; scale bar = 25 µm. Data are presented as box plots. The center line represents the median value, the limits represent the 25th & 75th percentile, & the whiskers represent the minimum & maximum value of the distribution. *p < .05, ***p < .001 Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/31560162), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Western Blot: AIF-1/Iba1 Antibody [NB100-2833] - Astrocytic marker was decreased in the brain of prenatally saline-exposed offspring, but not in the offspring prenatally exposed to LPS, following pharmacological activation of mGluR5.A prenatal administration of LPS did not change the brain expression level of iba1, CD68, GFAP or mGluR5 in 4-month-old mice (A). Postnatal CDPPB treatment reduced the GFAP level, without effect on iba1, CD68 or mGluR5 in the mice prenatally exposed to saline solution. The quantified molecular markers did not change in the brain of mice treated with MTEP (B). No change in iba1, CD68, GFAP or mGluR5 was observed in the brain of the mice prenatally exposed to LPS (C). Values are expressed as mean ± SEM. Abbreviations: MTEP, 3-((2-methyl-4-thiazolyl)ethynyl)pyridine; CDPPB, 3-cyano-N-(1,3-diphenyl-1H-pyrazol-5-yl) benzamide; CD68, cluster of differentiation 68); iba1, ionized calcium binding adaptor molecule-1; GFAP, glial fibrillary acidic protein; mGluR5, metabotropic glutamate receptor subtype 5; ROD, relative optical density. **p < 0.01 >> Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/26536027), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Wu Z, Zhai M, Wang Y et al. Astrocyte-microglia crosstalk in the hippocampus mediates cognitive impairments induced by chronic intermittent hypoxia. Neurobiology of disease 2025-09-22 [PMID: 40992699]

Awad-Igbaria Y, Ferreira N, Keadan A et al. HBO treatment enhances motor function and modulates pain development after sciatic nerve injury via protection the mitochondrial function Journal of Translational Medicine 2023-08-15 [PMID: 37582750]

Rosas Almanza J, Stehlik KE, Page JJ, Xiong SH et Al. IL-12p40 promotes secondary damage and functional impairment after spinal cord contusional injury J Neurosci Res 2022-09-12 [PMID: 36089917]

Kawai M, Imaizumi K, Ishikawa M Et al. Long-term selective stimulation of transplanted neural stem/progenitor cells for spinal cord injury improves locomotor function Cell reports 2021-11-23 [PMID: 34818559] (IHC-P, Mouse)

Velazquez R, Ferreira E et al. Lifelong choline supplementation ameliorates Alzheimer's disease pathology and associated cognitive deficits by attenuating microglia activation. Aging Cell 2019-01-12 [PMID: 31560162] (IF/IHC, Mouse)

Guyot AC, Leuxe C, Disdier C et al. A Small Compound Targeting Prohibitin with Potential Interest for Cognitive Deficit Rescue in Aging mice and Tau Pathology Treatment Sci Rep 2020-01-24 [PMID: 31980673] (IHC-Fr)

Neckles VN, Morton MC, Holmberg JC et al. A transgenic inducible GFP extracellular-vesicle reporter (TIGER) mouse illuminates neonatal cortical astrocytes as a source of immunomodulatory extracellular vesicles Sci Rep 2019-02-28 [PMID: 30816224] (IF/IHC, Mouse)

Ilievski V, Zuchowska Pk, Green SJ et al. Chronic oral application of a periodontal pathogen results in brain inflammation, neurodegeneration and amyloid beta production in wild type mice. PLoS ONE. 2018-10-03 [PMID: 30281647] (IF/IHC, Mouse)

Morton MC, Neckles VN, Seluzicki CM et al. Neonatal Subventricular Zone Neural Stem Cells Release Extracellular Vesicles that Act as a Microglial Morphogen. Cell Rep 2018-04-03 [PMID: 29617675] (IF/IHC, Mouse)

Arsenault D, Coulombe K, Zhu A et al. Loss of Metabotropic Glutamate Receptor 5 Function on Peripheral Benzodiazepine Receptor in Mice Prenatally Exposed to LPS. PLoS ONE. 2015-11-05 [PMID: 26536027] (WB, Mouse)

Yang ZF, Ho DW, Lau CK et al. Allograft inflammatory factor-1 (AIF-1) is crucial for the survival and pro-inflammatory activity of macrophages. Int Immunol 2005-11-01 [PMID: 16157606]

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