# Datasheet: MCA711SBV710

**BATCH NUMBER 64777527**

| | |
|---|---|
| **Description:** | RAT ANTI MOUSE CD11b:StarBright Violet 710 |
| **Specificity:** | CD11b |
| **Other names:** | CD11, INTEGRIN ALPHA M CHAIN, MAC-1 |
| **Format:** | StarBright Violet 710 |
| **Product Type:** | Monoclonal Antibody |
| **Clone:** | 5C6 |
| **Isotype:** | IgG2b |
| **Quantity:** | 100 TESTS/0.5ml |

## Product Details

**Applications**

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

| | Yes | No | Not Determined | Suggested Dilution |
|---|---|---|---|---|
| Flow Cytometry (1) | ▪ | | | Neat |

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

(1)**Staining at lower temperatures generally requires longer incubation to reach antibody binding equilibrium, and this effect is more pronounced for StarBright Dyes due to their larger size. For optimum staining, Bio-Rad recommends incubating samples either overnight at 4°C or 1 hour at room temperature.**

**Target Species**

Mouse

**Species Cross Reactivity**

Reacts with: Human

**N.B.** Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.

**Product Form**

Purified IgG conjugated to StarBright Violet 710 - liquid

**Max Ex/Em**

| Fluorophore | Excitation Max (nm) | Emission Max (nm) |
|---|---|---|
| StarBright Violet 710 | 402 | 713 |

| | |
|---|---|
| **Preparation** | Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant |
| **Buffer Solution** | Phosphate buffered saline |
| **Preservative Stabilisers** | 0.09% Sodium Azide ($NaN_3$)<br>1% Bovine Serum Albumin<br>0.1% Pluronic F68<br>0.1% PEG 3350<br>0.05% Tween 20 |
| **Approx. Protein Concentrations** | For information on the concentration of our StarBright Dye conjugated reagents please visit our FAQ page. |
| **Immunogen** | Thioglycollate-elicited peritoneal macrophages (TPM) |
| **External Database Links** | **UniProt:**<br>P05555 Related reagents<br><br>**Entrez Gene:**<br>16409 Itgam Related reagents |
| **Fusion Partners** | Spleen cells from AO rats were fused with cells of the Y3 rat myeloma cell line |
| **Specificity** | **Rat anti Mouse CD11b antibody, clone 5C6** recognizes CD11b, also known as the integrin alpha M chain. CD11b is implicated in various adhesive interactions of monocytes, macrophages and granulocytes as well as in mediating the uptake of complement-coated particles.<br><br>Rat anti Mouse CD11b antibody, clone 5C6 immunoprecipitates a heterodimer of ~165 and ~95 kDa. This clone also exhibits various functional properties, reportedly inhibiting adhesion *in vitro* and inflammatory recruitment *in vivo*. Rat anti Mouse CD11b antibody, clone 5C6 also inhibits delayed hypersensitivity, potentiates bacterial infections and inhibits type 1 diabetes. |
| **Flow Cytometry** | Use 5µl of the suggested working dilution to label $0.5x10^6$ cells in 100µl. Best practices suggest a 5 min centrifugation at 6,000g prior to sample application. |
| **References** | 1. Rosen, H. and Gordon, S. (1987) Monoclonal antibody to the murine type 3 complement receptor inhibits adhesion of myelomonocytic cells *in vitro* and inflammatory cell recruitment *in vivo*. J Exp Med. 166: 1685-701.<br>2. Rosen, H. *et al.* (1989) Antibody to the murine type 3 complement receptor inhibits T lymphocyte-dependent recruitment of myelomonocytic cells *in vivo*. J Exp Med. 169: 535-48.<br>3. Serafini, B. *et al.* (2000) Intracerebral recruitment and maturation of dendritic cells in the onset and progression of experimental autoimmune encephalomyelitis. Am J Pathol. 157: 1991-2002. |

4. Platt, N. *et al.* (2000) Apoptotic thymocyte clearance in scavenger receptor class A-deficient mice is apparently normal. J Immunol. 164: 4861-7.
5. Carenini, S. *et al.* (2001) The role of macrophages in demyelinating peripheral nervous system of mice heterozygously deficient in p0. J Cell Biol. 152: 301-8.
6. Engwerda, C.R. *et al.* (2002) Locally up-regulated lymphotoxin alpha, not systemic tumor necrosis factor alpha, is the principle mediator of murine cerebral malaria. J Exp Med. 195: 1371-7.
7. Mittal, A. *et al.* (2003) CD11b+ cells are the major source of oxidative stress in UV radiation-irradiated skin: possible role in photoaging and photocarcinogenesis. Photochem Photobiol. 77 (3): 259-64.
8. Lesnik, P. *et al.* (2003) Decreased atherosclerosis in CX3CR1-/- mice reveals a role for fractalkine in atherogenesis. J Clin Invest. 111: 333-40.
9. Di Filippo, C. *et al.* (2005) Cannabinoid CB2 receptor activation reduces mouse myocardial ischemia-reperfusion injury: involvement of cytokine/chemokines and PMN. J Leukoc Biol. 75 (3): 453-9.
10. Lin, H.H. *et al.* (2005) The macrophage F4/80 receptor is required for the induction of antigen-specific efferent regulatory T cells in peripheral tolerance. J Exp Med. 201: 1615-25.
11. Mennini, T. *et al.* (2006) Nonhematopoietic erythropoietin derivatives prevent motoneuron degeneration *in vitro* and *in vivo*. Mol Med. 12: 153-60.
12. Saura, J. (2007) Microglial cells in astroglial cultures: a cautionary note. J Neuroinflammation. 4: 26.
13. Kondo, Y. *et al.* (2007) Osteopetrotic (op/op) mice have reduced microglia, no Abeta deposition, and no changes in dopaminergic neurons. J Neuroinflammation. 4: 31.
14. Halle, A. *et al.* (2008) The NALP3 inflammasome is involved in the innate immune response to amyloid-beta. Nat Immunol. 9: 857-65.
15. Devey, L. *et al.* (2008) Tissue-resident Macrophages protect the Liver From Ischemia Reperfusion Injury via a Heme Oxygenase-1-Dependent mechanism. Mol Ther. 1: 65-72.
16. Hickman, S.E. *et al.* (2008) Microglial dysfunction and defective beta-amyloid clearance pathways in aging Alzheimer's disease mice. J Neurosci. 28 (33): 8354-60.
17. Khorooshi, R. *et al.* (2008) NF-kappaB-driven STAT2 and CCL2 expression in astrocytes in response to brain injury. J Immunol.181: 7284-91.
18. Basso, A.S. *et al.* (2008) Reversal of axonal loss and disability in a mouse model of progressive multiple sclerosis. J Clin Invest. 118: 1532-43.
19. Weberpals, M. *et al.* (2009) NOS2 gene deficiency protects from sepsis-induced long-term cognitive deficits. J Neurosci. 29: 14177-84.
20. Valerio, A. *et al.* (2009) Leptin is induced in the ischemic cerebral cortex and exerts neuroprotection through NF-kappaB/c-Rel-dependent transcription. Stroke. 40: 610-7.
21. Traka, .M. *et al* (2010) A genetic mouse model of adult-onset, pervasive central nervous system demyelination with robust remyelination. Brain. 133: 3017-29.
22. Kim, D. *et al.* (2010) NADPH oxidase 2-derived reactive oxygen species in spinal cord microglia contribute to peripheral nerve injury-induced neuropathic pain. Proc Natl Acad Sci U S A. 107: 14851-6.
23. Lu, J. *et al.* (2010) Ursolic acid attenuates D-galactose-induced inflammatory response in mouse prefrontal cortex through inhibiting AGEs/RAGE/NF-κB pathway activation. Cereb Cortex. 20: 2540-8.
24. Heneka, M.T. *et al.* (2010) Locus ceruleus controls Alzheimer's disease pathology by

modulating microglial functions through norepinephrine. Proc Natl Acad Sci U S A. 107: 6058-63.
25. Dohi, K. *et al.* (2010) Gp91phox (NOX2) in classically activated microglia exacerbates traumatic brain injury. J Neuroinflammation. 7: 41.
26. Cui, Y.F. *et al.* (2010) Embryonic stem cell-derived L1 overexpressing neural aggregates enhance recovery in Parkinsonian mice. Brain. 133: 189-204.
27. Wu, T. *et al.* (2011) Expression and cellular localization of cyclooxygenases and prostaglandin E synthases in the hemorrhagic brain. J Neuroinflammation. 8:22.
28. Tysseling, V.M.*et al.* (2011) SDF1 in the dorsal corticospinal tract promotes CXCR4+ cell migration after spinal cord injury. J Neuroinflammation. 8:16.
29. McDonald, J.U. *et al.* (2011) *In vivo* functional analysis and genetic modification of *in vitro*-derived mouse neutrophils. FASEB J. 25: 1972-82.
30. Terwel, D. *et al.* (2011) Critical Role of Astroglial Apolipoprotein E and Liver X Receptor-{alpha} Expression for Microglial A{beta} Phagocytosis. J Neurosci. 31: 7049-59.
31. Sato, A. *et al.* (2012) Interleukin-1 participates in the classical and alternative activation of microglia/macrophages after spinal cord injury. J Neuroinflammation. 9: 65.
32. Heydenreich, N. *et al.* (2012) C1-inhibitor protects from brain ischemia-reperfusion injury by combined antiinflammatory and antithrombotic mechanisms. Stroke. 43 (9): 2457-67.
33. Yamanaka M *et al.* (2012) PPARγ/RXRα-induced and CD36-mediated microglial amyloid-β phagocytosis results in cognitive improvement in amyloid precursor protein/presenilin 1 mice. J Neurosci. 32 (48): 17321-31.
34. Mencl, S. *et al.* (2014) FTY720 does not protect from traumatic brain injury in mice despite reducing posttraumatic inflammation. J Neuroimmunol. 274 (1-2): 125-31.
35. Natrajan, M.S. *et al.* (2015) Retinoid X receptor activation reverses age-related deficiencies in myelin debris phagocytosis and remyelination. Brain. 138 (Pt 12): 3581-97.
36. Kan, M.J. *et al.* (2015) Arginine deprivation and immune suppression in a mouse model of Alzheimer's disease. J Neurosci. 35 (15): 5969-82.
37. Babcock, A.A. *et al.* (2015) Cytokine-producing microglia have an altered beta-amyloid load in aged APP/PS1 Tg mice. Brain Behav Immun. 48: 86-101.
38. KaindlstorferC. *et al.* (2015) Failure of Neuroprotection Despite Microglial Suppression by Delayed-Start Myeloperoxidase Inhibition in a Model of Advanced Multiple System Atrophy: Clinical Implications. Neurotox Res. 28 (3): 185-94.
39. Liu, Z. *et al.* (2016) Transforming growth factor-β1 acts via TβR-I on microglia to protect against MPP(+)-induced dopaminergic neuronal loss. Brain Behav Immun. 51: 131-43.
40. Garcia-Mesa, Y. *et al.* (2017) Immortalization of primary microglia: a new platform to study HIV regulation in the central nervous system. J Neurovirol. 23 (1): 47-66.
41. Lu, Y. *et al.* (2016) Annexin A10 is involved in the development and maintenance of neuropathic pain in mice. Neurosci Lett. 631: 1-6.
42. Hristova M *et al.* (2016) Inhibition of Signal Transducer and Activator of Transcription 3 (STAT3) reduces neonatal hypoxic-ischaemic brain damage. J Neurochem. 136 (5): 981-994.
43. Ye, M. *et al.* (2016) Neuroprotective effects of bee venom phospholipase A2 in the 3xTg AD mouse model of Alzheimer's disease. J Neuroinflammation. 13 (1): 10.
44. Nagai, J. *et al.* (2016) Inhibition of CRMP2 phosphorylation repairs CNS by regulating neurotrophic and inhibitory responses. Exp Neurol. 277: 283-95.

45. Tachibana, M. *et al.* (2016) Rescuing effects of RXR agonist bexarotene on aging-related synapse loss depend on neuronal LRP1. Exp Neurol. 277: 1-9.
46. Sun, H. *et al.* (2016) Aquaporin-4 mediates communication between astrocyte and microglia: Implications of neuroinflammation in experimental Parkinson's disease. Neuroscience. 317: 65-75.
47. Shinohara, M. *et al.* (2016) APOE2 eases cognitive decline during Aging: Clinical and preclinical evaluations. Ann Neurol. 79 (5): 758-74.
48. Kami, K. *et al.* (2016) Histone Acetylation in Microglia Contributes to Exercise-Induced Hypoalgesia in Neuropathic Pain Model Mice. J Pain. 17 (5): 588-99.
49. Bisht, K. *et al.* (2016) Dark microglia: A new phenotype predominantly associated with pathological states. Glia. 64 (5): 826-39.
50. Hilla, A.M. *et al.* (2017) Microglia Are Irrelevant for Neuronal Degeneration and Axon Regeneration after Acute Injury. J Neurosci. 37 (25): 6113-24.
51. Paizs, M. *et al.* (2017) Axotomy Leads to Reduced Calcium Increase and Earlier Termination of CCL2 Release in Spinal Motoneurons with Upregulated Parvalbumin Followed by Decreased Neighboring Microglial Activation. CNS Neurol Disord Drug Targets. 16 (3): 356-67.
52. Pulido-Salgado, M. *et al.* (2017) Myeloid C/EBPβ deficiency reshapes microglial gene expression and is protective in experimental autoimmune encephalomyelitis. J Neuroinflammation. 14 (1): 54.
53. Thomsen, M.S. *et al.* (2017) Synthesis and deposition of basement membrane proteins by primary brain capillary endothelial cells in a murine model of the blood-brain barrier. J Neurochem. 140 (5): 741-754.
54. Laurent, C. *et al.* (2017) Hippocampal T cell infiltration promotes neuroinflammation and cognitive decline in a mouse model of tauopathy. Brain. 140 (Pt 1): 184-200.
55. Schuhmann, M.K. *et al.* (2017) Blocking of platelet glycoprotein receptor Ib reduces "thrombo-inflammation" in mice with acute ischemic stroke. J Neuroinflammation. 14 (1): 18.
56. Rabl, R. *et al.* (2017) Early start of progressive motor deficits in Line 61 α-synuclein transgenic mice. BMC Neurosci. 18 (1): 22.
57. Crépeaux, G. *et al.* (2017) Non-linear dose-response of aluminium hydroxide adjuvant particles: Selective low dose neurotoxicity. Toxicology. 375: 48-57.
58. Da Ros, F. *et al.* (2017) Targeting Interleukin-1β Protects from Aortic Aneurysms Induced by Disrupted Transforming Growth Factor β Signaling. Immunity. 47 (5): 959-973.e9.
59. Hou, L. *et al.* (2018) Taurine protects noradrenergic locus coeruleus neurons in a mouse Parkinson's disease model by inhibiting microglial M1 polarization. Amino Acids. 50 (5): 547-556.
60. Zheng, J. *et al.* (2018) Evaluation of metastatic niches in distant organs after surgical removal of tumor-bearing lymph nodes. BMC Cancer. 18 (1): 608.
61. Soto, M. *et al.* (2018) Gut microbiota modulate neurobehavior through changes in brain insulin sensitivity and metabolism. Mol Psychiatry. 23 (12): 2287-301.
62. Mouton-Liger, F. *et al.* (2018) Parkin deficiency modulates NLRP3 inflammasome activation by attenuating an A20-dependent negative feedback loop. Glia. 66 (8): 1736-51.
63. Roberts, J.M. *et al.* (2018) Bilateral carotid artery stenosis causes unexpected early changes in brain extracellular matrix and blood-brain barrier integrity in mice. PLoS One. 13 (4): e0195765.

64. Cope, E.C. *et al.* (2018) Microglia Play an Active Role in Obesity-Associated Cognitive Decline. J Neurosci. 38 (41): 8889-904.
65. Song, S. *et al.* (2019) Noradrenergic dysfunction accelerates LPS-elicited inflammation-related ascending sequential neurodegeneration and deficits in non-motor/motor functions. Brain Behav Immun. 81: 374-87.
66. Liu, Z. *et al.* (2019) IL-17A exacerbates neuroinflammation and neurodegeneration by activating microglia in rodent models of Parkinson's disease. Brain Behav Immun. 81: 630-45.
67. Gomez-Nicola, D. *et al.* (2019) Measuring Microglial Turnover in the Adult Brain. Methods Mol Biol. 2034: 207-15.
68. Di Benedetto, G. *et al.* (2019) Beneficial effects of curtailing immune susceptibility in an Alzheimer's disease model. J Neuroinflammation. 16 (1): 166.
69. Bernier, L.P. *et al.* (2019) Nanoscale Surveillance of the Brain by Microglia via cAMP-Regulated Filopodia. Cell Rep. 27 (10): 2895-2908.e4.
70. Tunesi, M. *et al.* (2019) Hydrogel-based delivery of Tat-fused protein Hsp70 protects dopaminergic cells in vitro and in a mouse model of Parkinson’s disease NPG Asia Materials. 11: 28.
71. Myhre, C.L. *et al.* (2019) Microglia Express Insulin-Like Growth Factor-1 in the Hippocampus of Aged $APP_{swe}/PS1_{\Delta E9}$ Transgenic Mice. Front Cell Neurosci. 13: 308.
72. Hauptmann, J. *et al.* (2020) Interleukin-1 promotes autoimmune neuroinflammation by suppressing endothelial heme oxygenase-1 at the blood-brain barrier. Acta Neuropathol. 140 (4): 549-67.
73. Yang, P. *et al.* (2020) Suppression of cGMP-Dependent Photoreceptor Cytotoxicity With Mycophenolate Is Neuroprotective in Murine Models of Retinitis Pigmentosa. Invest Ophthalmol Vis Sci. 61 (10): 25.
74. Potì, F. *et al.* (2020) Impact of S1P Mimetics on Mesenteric Ischemia/Reperfusion Injury. Pharmaceuticals (Basel). 13 (10) 298.
75. Wi, R. *et al.* (2020) Functional Crosstalk between CB and TRPV1 Receptors Protects Nigrostriatal Dopaminergic Neurons in the MPTP Model of Parkinson's Disease. J Immunol Res. 2020: 5093493.
76. Madore, C. *et al.* (2020) Essential omega-3 fatty acids tune microglial phagocytosis of synaptic elements in the mouse developing brain. Nat Commun. 11 (1): 6133.
77. Ellman, D.G. *et al.* (2020) Conditional Ablation of Myeloid TNF Improves Functional Outcome and Decreases Lesion Size after Spinal Cord Injury in Mice. Cells. 9 (11): 2407.
78. Elabi, O. *et al.* (2021) Human α-synuclein overexpression in a mouse model of Parkinson's disease leads to vascular pathology, blood brain barrier leakage and pericyte activation. Sci Rep. 11 (1): 1120.
79. Yoshizaki, S. *et al.* (2021) Microglial inflammation after chronic spinal cord injury is enhanced by reactive astrocytes via the fibronectin/β1 integrin pathway. J Neuroinflammation. 18 (1): 12.
80. Mañucat-Tan, N. *et al.* (2021) Hypochlorite-induced aggregation of fibrinogen underlies a novel antioxidant role in blood plasma. Redox Biol. 40: 101847.
81. Brunialti, E. *et al.* (2021) Inhibition of microglial β-glucocerebrosidase hampers the microglia-mediated antioxidant and protective response in neurons. J Neuroinflammation. 18 (1): 220.
82. Spitzel, M. *et al.* (2022) Dysregulation of Immune Response Mediators and Pain-Related Ion Channels Is Associated with Pain-like Behavior in the GLA KO Mouse

Model of Fabry Disease. Cells. 11 (11): 1730.
83. Ji, N. *et al.* (2022) VSIG4 Attenuates NLRP3 and Ameliorates Neuroinflammation via JAK2-STAT3-A20 Pathway after Intracerebral Hemorrhage in Mice. Neurotox Res. 40 (1): 78-88.
84. Shanaki-Bavarsad, M. *et al.* (2022) Astrocyte-targeted Overproduction of IL-10 Reduces Neurodegeneration after TBI. Exp Neurobiol. 31 (3): 173-95.
85. Bretheau, F. *et al.* (2022) The alarmin interleukin-1α triggers secondary degeneration through reactive astrocytes and endothelium after spinal cord injury. Nat Commun. 13 (1): 5786.
86. Bani-Hani, M. *et al*. (2023) Interactions of Carboxylated Nanodiamonds With Mouse Macrophages Cell Line and Primary Cells Int J Orthopaed Res. 6 (1): 30-43.
87. Saraiva, C. *et al.* (2023) CtBP Neuroprotective Role in Toxin-Based Parkinson's Disease Models: From Expression Pattern to Dopaminergic Survival. Mol Neurobiol. 60 (8): 4246-60.
88. Nelke, C. *et al.* (2023) K(2P)2.1 is a regulator of inflammatory cell responses in idiopathic inflammatory myopathies. J Autoimmun. 142: 103136.
89. Telianidis, J. *et al.* (2023) Inhibition of insulin-regulated aminopeptidase confers neuroprotection in a conscious model of ischemic stroke. Sci Rep. 13 (1): 19722.
90. Flocke, V. *et al.* (2023) Noninvasive assessment of metabolic turnover during inflammation by *in vivo* deuterium magnetic resonance spectroscopy. Front Immunol. 14: 1258027.
91. Heiduschka, P. *et al.* (2023) Sub-Retinal Injection of Human Lipofuscin in the Mouse - A Model of “Dry” Age-Related Macular Degeneration? Aging and disease. 14 (1): 184.
92. Lim, J. *et al.* (2018) Characterizing the Mechanisms of Nonopsonic Uptake of Cryptococci by Macrophages. J Immunol. 200 (10): 3539-46.
93. Huang, J.H. *et al.* (2018) NLRX1 Facilitates *Histoplasma capsulatum*-Induced LC3-Associated Phagocytosis for Cytokine Production in Macrophages. Front Immunol. 9: 2761.
94. Frey, O. *et al.* (2018) Induction of chronic destructive arthritis in SCID mice by arthritogenic fibroblast-like synoviocytes derived from mice with antigen-induced arthritis. Arthritis Res Ther. 20 (1): 261.
95. Friker, L.L. *et al.* (2020) β-Amyloid Clustering around ASC Fibrils Boosts Its Toxicity in Microglia. Cell Rep. 30 (11): 3743-54.e6.
96. Hickman, S.E. *et al.* (2019) Heterozygous CX3CR1 Deficiency in Microglia Restores Neuronal β-Amyloid Clearance Pathways and Slows Progression of Alzheimer's Like-Disease in PS1-APP Mice. Front Immunol. 10: 2780.
97. Kim, D.H. *et al.* (2018) Effect of growth differentiation factor-15 secreted by human umbilical cord blood-derived mesenchymal stem cells on amyloid beta levels in *in vitro* and *in vivo* models of Alzheimer's disease. Biochem Biophys Res Commun. 504 (4): 933-40.
98. Maezawa, I. *et al.* (2018) Kv1.3 inhibition as a potential microglia-targeted therapy for Alzheimer's disease: preclinical proof of concept. Brain. 141 (2): 596-612.
99. Price, B.R. *et al.* (2020) Therapeutic Trem2 activation ameliorates amyloid-beta deposition and improves cognition in the 5XFAD model of amyloid deposition. J Neuroinflammation. 17 (1): 238.
100. Thygesen, C. *et al.* (2018) Diverse Protein Profiles in CNS Myeloid Cells and CNS Tissue From Lipopolysaccharide- and Vehicle-Injected $APP_{SWE}/PS1_{\Delta E9}$ Transgenic Mice

Implicate Cathepsin Z in Alzheimer's Disease. Front Cell Neurosci. 12: 397.
101. Weekman, E.M. *et al.* (2019) Time course of neuropathological events in hyperhomocysteinemic amyloid depositing mice reveals early neuroinflammatory changes that precede amyloid changes and cerebrovascular events. J Neuroinflammation. 16 (1): 284.
102. Thei, L. *et al.* (2018) Extracellular signal-regulated kinase 2 has duality in function between neuronal and astrocyte expression following neonatal hypoxic-ischaemic cerebral injury. J Physiol. 596 (23): 6043-62.
103. Ryan, F. *et al.* (2018) Ceruloplasmin Plays a Neuroprotective Role in Cerebral Ischemia. Front Neurosci. 12: 988.
104. Rizzi, C. *et al.* (2018) NGF steers microglia toward a neuroprotective phenotype. Glia. 66 (7): 1395-416.
105. Haight, E.S. *et al.* (2020) Of mice, microglia, and (wo)men: a case series and mechanistic investigation of hydroxychloroquine for complex regional pain syndrome. Pain Rep. 5 (5): e841.
106. Berve, K. *et al.* (2020) Sex- and region-biased depletion of microglia/macrophages attenuates CLN1 disease in mice. J Neuroinflammation. 17 (1): 323.
107. Su, N. *et al.* (2023) Sub-Retinal Injection of Human Lipofuscin in the Mouse - A Model of "Dry" Age-Related Macular Degeneration? Aging Dis. 14 (1): 184-203.
108. Geladaris, A. *et al.* (2024) BTK inhibition limits microglia-perpetuated CNS inflammation and promotes myelin repair. Acta Neuropathol. 147 (1): 75.
109. Venezia, S. *et al.* (2021) Toll-like receptor 4 deficiency facilitates α-synuclein propagation and neurodegeneration in a mouse model of prodromal Parkinson's disease. Parkinsonism Relat Disord. 91: 59-65.
110. Klawonn, A.M. *et al.* (2021) Microglial activation elicits a negative affective state through prostaglandin-mediated modulation of striatal neurons. Immunity. 54 (2): 225-234.e6.
111. Wang, F. *et al.* (2021) Neutralization of Hv1/HVCN1 With Antibody Enhances Microglia/Macrophages Myelin Clearance by Promoting Their Migration in the Brain. Front Cell Neurosci. 15: 768059.
112. Ryan, F. *et al.* (2024) Ferroptosis inhibitor improves outcome after early and delayed treatment in mild spinal cord injury. Acta Neuropathol. 147 (1): 106.
113. Zhao, Z. *et al.* (2020) A novel role of NLRP3-generated IL-1β in the acute-chronic transition of peripheral lipopolysaccharide-elicited neuroinflammation: implications for sepsis-associated neurodegeneration. J Neuroinflammation. 17 (1): 64.
114. Schuhmann, M.K. *et al.* (2020) CD84 Links T Cell and Platelet Activity in Cerebral Thrombo-Inflammation in Acute Stroke. Circ Res. 127 (8): 1023-1035.
115. Flocke, V. *et al.* (2023) Noninvasive assessment of metabolic turnover during inflammation by *in vivo* deuterium magnetic resonance spectroscopy. Front Immunol. 14: 1258027.
116. Jang, G. *et al.* (2024) Visceral adiposity is associated with iron deposition and myelin loss in the brains of aged mice. Neurochem Int. 179: 105833.
117. Ilse, V. *et al.* (2026) Reconstituting central nervous system niche cues partially restores homeostatic-like features in cultured murine primary microglia. Sci Rep. 16 (1): 20998
118. Zhao, X. *et al.* (2026) Neurological recovery after ICH is mediated by the aryl hydrocarbon receptor-bilirubin interplay through improved erythrophagocytosis. J Cereb

Blood Flow Metab. 46 (2): 605-621.
119. Elabi, O.F. *et al.* (2026) Deletion of RGS5 attenuates high-fat diet-induced cerebrovascular pathology and associated spatial memory deficits. Brain Behav Immun. 138: 106950.
120. Tymm, C.C. *et al.* (2026) Cardiac tertiary immune niches drive immune activation in immune checkpoint inhibitor myocarditis. Sci Adv. 12 (35): eaed8359.

| | |
|---|---|
| **Storage** | This product is shipped at ambient temperature.<br>Store at +4°C. DO NOT FREEZE.<br>This product should be stored undiluted.<br>This product is photosensitive and should be stored protected from light. |
| **Guarantee** | 12 months from date of despatch |
| **Acknowledgements** | This product is covered by U.S. Patent No. 10,150,841 and related U.S. and foreign counterparts |
| **Health And Safety Information** | Material Safety Datasheet documentation #20471 available at:<br>https://www.bio-rad-antibodies.com/SDS/MCA711SBV710 |
| **Regulatory** | For research purposes only |

## Related Products

### Recommended Useful Reagents

MOUSE SEROBLOCK FcR (BUF041A)
MOUSE SEROBLOCK FcR (BUF041B)

**Product inquiries: www.bio-rad-antibodies.com/technical-support**

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets
'M488142:261016'

**Printed on 04 Nov 2026**

© 2026 Bio-Rad Laboratories Inc | Legal | Imprint