

Rat CD11b Monoclonal Antibody | anti-CD11b antibody

RAT ANTI MOUSE CD11b

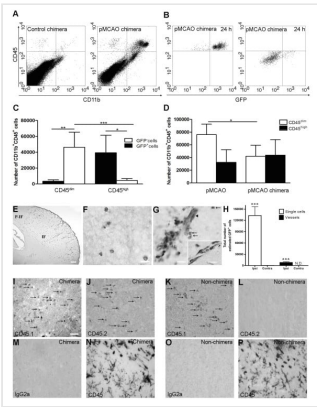
CATALOG #	HOST	APPLICATIONS
AAA12184	Rat	Immunohistochemistry, Flow Cytometry, Functional Assay, Immunofluorescence, Immunoprecipitation

PRODUCT SYNONYMS

CD11b; Monoclonal Antibody; RAT ANTI MOUSE CD11b; anti-CD11b antibody

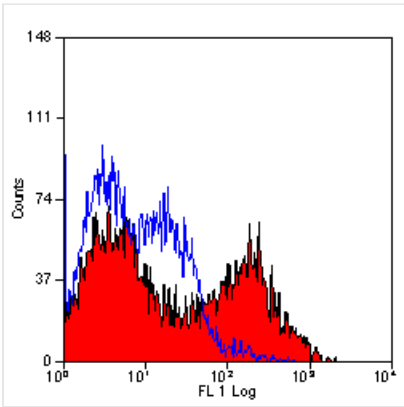
PRODUCT SPECIFICATIONS

Host	Rat
Clonality	Monoclonal
Isotype	IgG2b
Clone Number	5C6
Form/Format	Purified Purified IgG - liquid
Concentration	IgG concentration 1 mg/ml (varies by lot)
Sequence Length	1153
Applicable Applications for anti-CD11b antibody	IHC (Immunohistochemistry), FCM/FACS (Flow Cytometry), IF (Immunofluorescence), IP (Immunoprecipitation)
Application Notes	Flow Cytometry: Use 10ul of the suggested working dilution to label 106 cells in 100ul. Flow Cytometry: Maximum Dilution: 1/100
Perservative Stabilisers	0.09% Sodium Azide Preparation
Buffer Solution	Phosphate buffered saline
Target Species	Mouse
Preparation and Storage	Store at 4 degree C or at -20 degree C if preferred. This product should be stored undiluted. Storage in frost free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use. Shelf Life: 18 months from date of despatch.



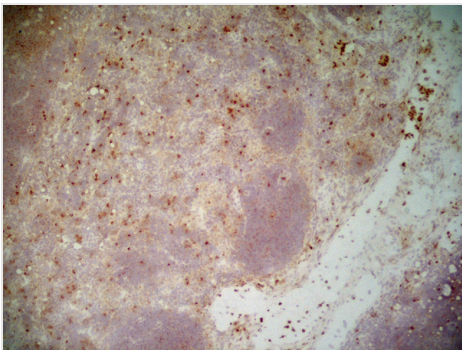
Application Data

Published customer image Infiltration of GFP+ BM-cells in infarct and peri-infarct regions. (A- B) Dot plots of viable macrophages/granulocytes (CD11b+CD45high, top right quadrants) and microglia (CD11b+CD45dim, bottom right quadrants) in cortex from BM-chimeric unmanipulated mice and mice exposed to pMCAO. (C) Bar graph showing mean numbers of CD11b+CD45dim microglia and CD11b+CD45high macrophages/granulocytes in BM-chimeric mice 24 hours after pMCAO, subdivided based on expression of GFP (n = 5). Approximately 92% of the CD45high population were GFP+. (D) Estimation and comparison of mean numbers of CD11b+CD45dim microglia in non-chimeric (n = 10) versus BM-chimeric mice (n = 5) 24 hours after of pMCAO shows significantly fewer CD11b+CD45dim microglial cells in irradiated mice. (E) Overview, showing distribution of infiltrating GFP+ BM-derived cells into infarct (IF) and peri-infarct (P-IF) regions 24 hours after pMCAO. (E-G) By 24 hours, GFP+ single cells (F) and vessel-associated aggregates of GFP+ cells (arrows in G) were observed in infarct and peri-infarct regions. Some of the vessel-associated cells were round, leukocyte-like cells (arrows) while others were elongated cells lining the vasculature (arrow heads in G and in insert). (H) Bar graph showing mean numbers of single GFP+ cells and vessel-associated aggregates of GFP+ cells in ipsi- and contralateral cortex 24 hours after surgery (n = 10). (I-P) Immunohistochemical staining of CD45.1 (I, K), CD45.2 (J, L), IgG2a (M, O) and CD45 (N, P) in ischemic tissue in BM-chimeric (I, J, M, N) and non-chimeric mice (K, L, O, P) 24 hours after pMCAO. N.D., none detected. Scale bars: 200 um (A), 10 um (B, C). 50 um (I-P) *P < 0.05, **P < 0.01, and ***P < 0.001.From: Clausen BH, Lambertsen KL, Babcock AA, Holm TH, Dagnaes-Hansen F, Finsen B. Interleukin-1beta and tumor necrosis factor-alpha are expressed by different subsets of microglia and macrophages after ischemic stroke in mice. J Neuroinflammation. 2008 Oct 23;5:46.

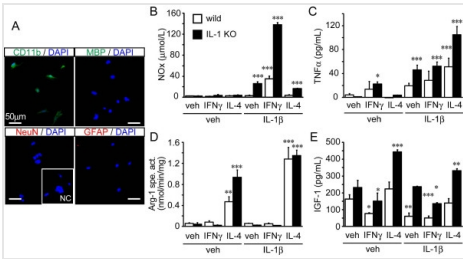


Application Data

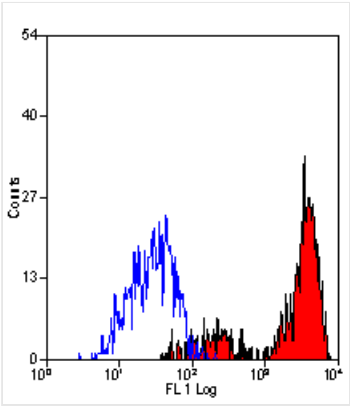
Staining of mouse bone marrow with Rat anti Mouse CD11b



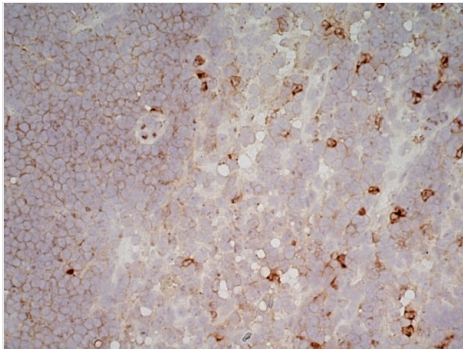
Application Data
Immunoperoxidase staining of mouse lymph node cryosection with Rat anti Mouse CD11b antibody, clone 5C6 followed by horseradish peroxidase conjugated Goat anti Rat IgG as a detection reagent. Low power



Application Data
Published customer image: Activation of adult primary microglial cells in wild-type and IL-1 KO mice. (A) Primary microglial cells were obtained from young adult wild-type mice. The cells stain with the microglial marker CD11b, but not with the neuronal and astroglial markers, NeuN and GFAP, respectively. A few cells are stained with the oligodendroglial cell marker, MBP. NC (inset) is the primary antibody-free negative control. The microglial cells (n = 3 each group) were stimulated for 24 hours in the presence of the vehicle alone, or supplemented with IFN γ or IL-4 in the presence or absence of IL-1 β . Total NO (NOx; B), TNF α (C), arginase specific activity (Arg-1 spe. act.; D) and IGF-1 (E) were determined from the media or cell suspensions. (B) NOx levels increase upon exposure of the cells to IL-1 β and in a synergistic manner upon co-treatment of the cells with IL-1 β and IFN γ , but not when the cotreatment is with IL-4. (C) TNF α levels increase upon exposure of the cells to IFN γ , and further upon co-treatment with IL-1 β . Surprisingly, the co-treatment of the cells with IL-4 and IL-1 β induced the highest TNF α level among the experimental treatments used. (D) Arg1-specific activity increased significantly upon exposure to IL-4 and further increased when IL-4 and IL-1 β were employed together. (E) IGF-1 levels decreased with exposure of the cells to IFN γ and increased in response to IL-4. The response was partially inhibited by cotreatment of the cells with IL-1 β . Data are expressed as mean $\pm$ SD (n = 3). *: P < 0.05, **: P < 0.01, ***: P < 0.001 compared with the vehicle-treated group in each genotype (one-way ANOVA followed by Dunnett post-hoc test). ANOVA, analysis of variance; IGF-1, insulin-like growth factor. From: Sato A, Ohtaki H, Tsumuraya T, Song D, Ohara K, Asano M, Iwakura Y, Atsumi T, Shioda S. Interleukin-1 participates in the classical and alternative activation of microglia/macrophages after spinal cord injury. J Neuroinflammation. 2012 Apr 7;9:65. doi: 10.1186/1742-2094-9-65.



Application Data
Staining of mouse peritoneal macrophages with Rat anti Mouse CD11b:FITC



Application Data
Immunoperoxidase staining of mouse lymph node cryosection with Rat anti Mouse CD11b antibody, clone 5C6 followed by horseradish peroxidase conjugated Goat anti Rat IgG as a detection reagent. High power

ADDITIONAL INFORMATION

Related Product Information for anti-CD11b antibody	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. MBS216530 immunoprecipitates a heterodimer of 165 and 95kD. Rat anti Mouse CD11b antibody, clone 5C6 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.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	124956
NCBI GeneID	16409

UniProt Accession #	P05555; Q8CA73
Molecular Weight	115,196 Da
NCBI Official Full Name	Integrin alpha-M
NCBI Official Synonym Full Names	integrin alpha M
NCBI Official Symbol	Itgam
NCBI Official Synonym Symbols	CR3; CR3A; MAC1; Cd11b; Ly-40; Mac-1; Mac-1a; CD11b/CD18; F730045J24Rik
NCBI Protein Information	integrin alpha-M; CD11 antigen-like family member B; CD11B (p170); CR-3 alpha chain; Mac-1 alpha; cell surface glycoprotein MAC-1 alpha subunit; cell surface glycoprotein MAC-1 subunit alpha; complement component receptor 3 alpha-a; complement receptor type 3; leukocyte adhesion receptor MO1; macrophage antigen alpha
UniProt Protein Name	Integrin alpha-M
UniProt Gene Name	Itgam
UniProt Entry Name	ITAM_MOUSE

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/monoclonal/cd11b-antibody-clone-5c6-immunohistochemistry-flow-cytometry-immunofluorescence-immunoprecipitation-elisa/12184>