Supplementary Figures

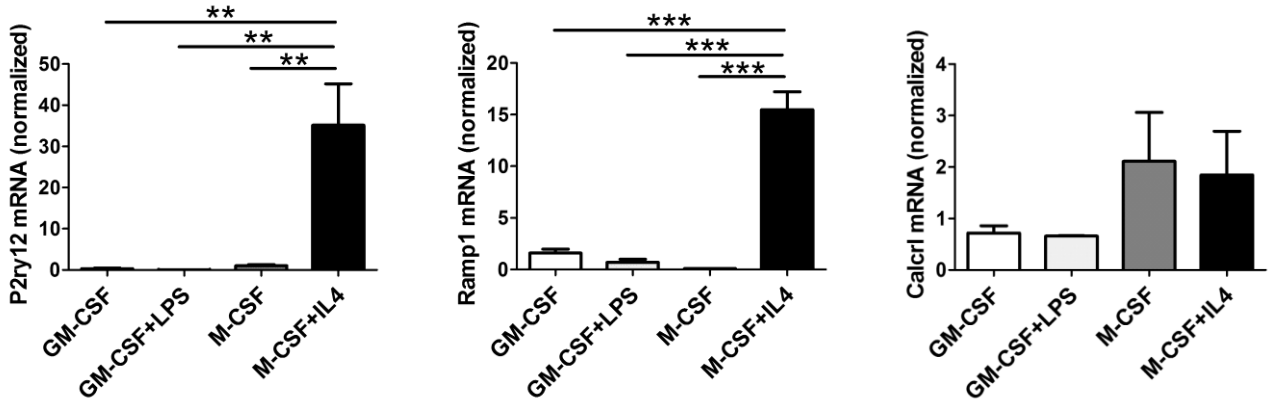

Figure S1. qPCR analysis of *P2RY12, RAMP1, and CALCRL* mRNA expression in primary human macrophage culture supplemented with colony-stimulating factors. *P2RY12, RAMP1, and CALCRL* mRNAs were measured in primary human macrophages differentiated in the presence of either GM-CSF or M-CSF for 6 days and then polarized for 48 h with GM-CSF ± 10 ng/µL LPS or with M-CSF ± 20 ng/µL rIL4. Data are normalized to the *UBC* and *POLR2A* transcripts as internal reference standards. Bars represent the mean ± SEM of 3 experiments. *, $P < 0.05$; **, $P < 0.01$; ***, $P < 0.001$ by one-way ANOVA.

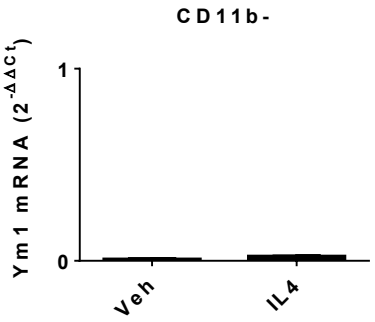

Figure S2. qPCR analysis of *Ym1* mRNA content in Cd11b-negative murine brain cells. *Ym1* mRNA was measured in Cd11b-negative brain cells from whole brains of C57/BL6 mice (n=3) mice 16 h post rIL4 (IL4, 100 ng) or vehicle (veh) icv injection. Data are expressed as $2^{-\Delta\Delta Ct}$ using the *36b4* transcript as an internal reference standard. Bars represent the mean ± SEM of 3 experiments done in triplicate, and indicate the -fold induction of *Ym1* mRNA vs. microglia acutely isolated from vehicle-injected mice.

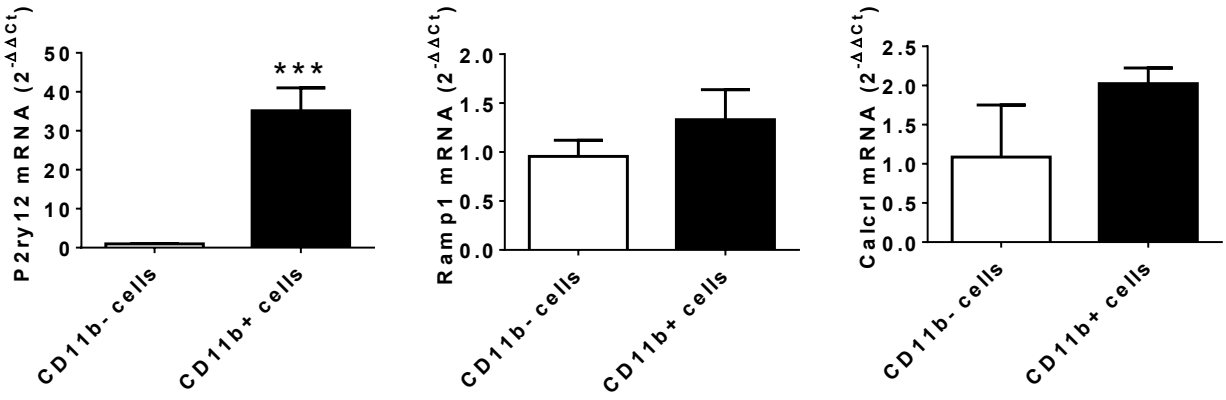

Figure S3. Comparison of *P2ry12, Ramp1, and Calcrl* mRNA expression in Cd11b-positive and -negative murine brain cells. *P2ry12, Ramp1, and Calcrl* mRNAs were measured in Cd11b-positive and Cd11b-negative brain cells isolated from whole brains of C57/BL6 mice (n=3) 16 h post rIL4 (IL4, 100 ng) icv injection. Data are expressed as $2^{-\Delta\Delta Ct}$ using the *36b4* transcript as an internal reference standard. Bars represent the mean ± SEM of 3 independent experiments done in triplicate. ***, $P < 0.001$ by one-way ANOVA vs.CD11b-negative cells.

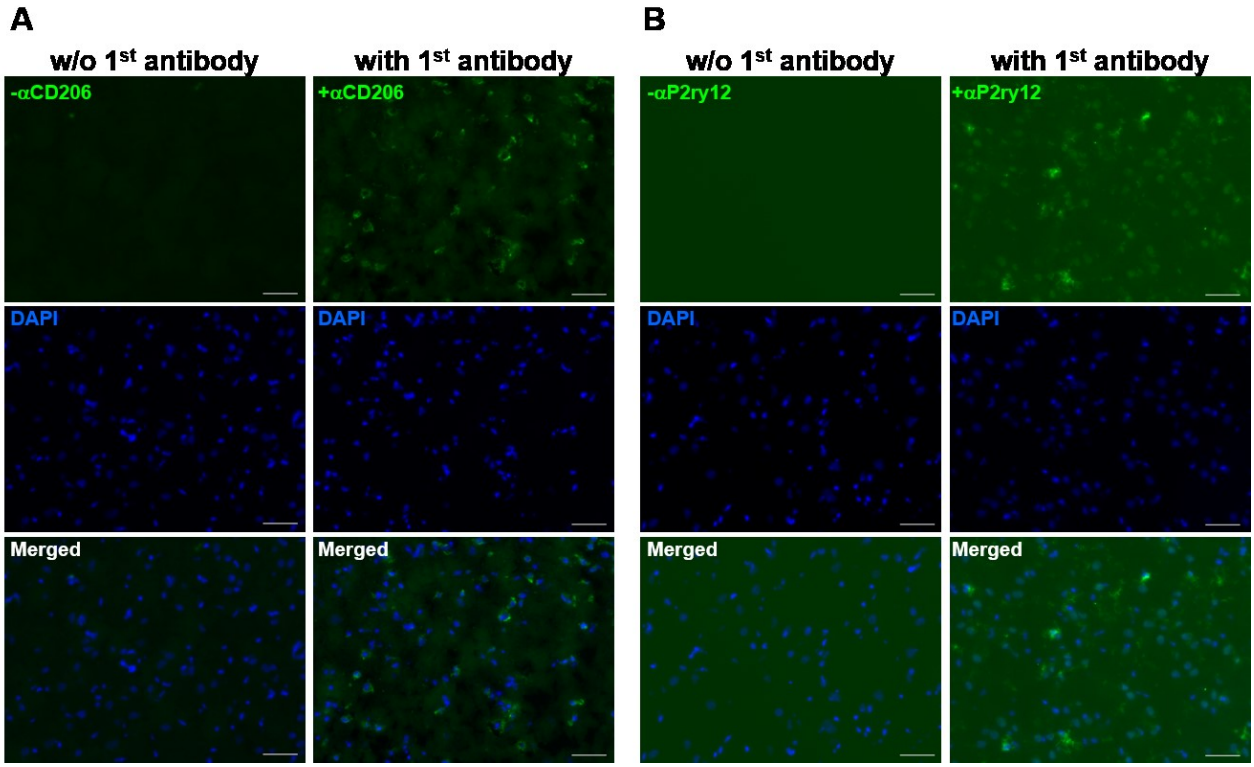

Figure S4: Specificity of antibodies recognizing CD206 and P2RY12 in rat brains injected with rIL4. Negative controls (without first antibody, A, B left column) and full IHC staining (A, B right column) in the rat striatum for CD206 (A, green) or P2RY12 (B, green), and DAPI (blue) following treatments with rIL4. Scale bars: 50 µm.

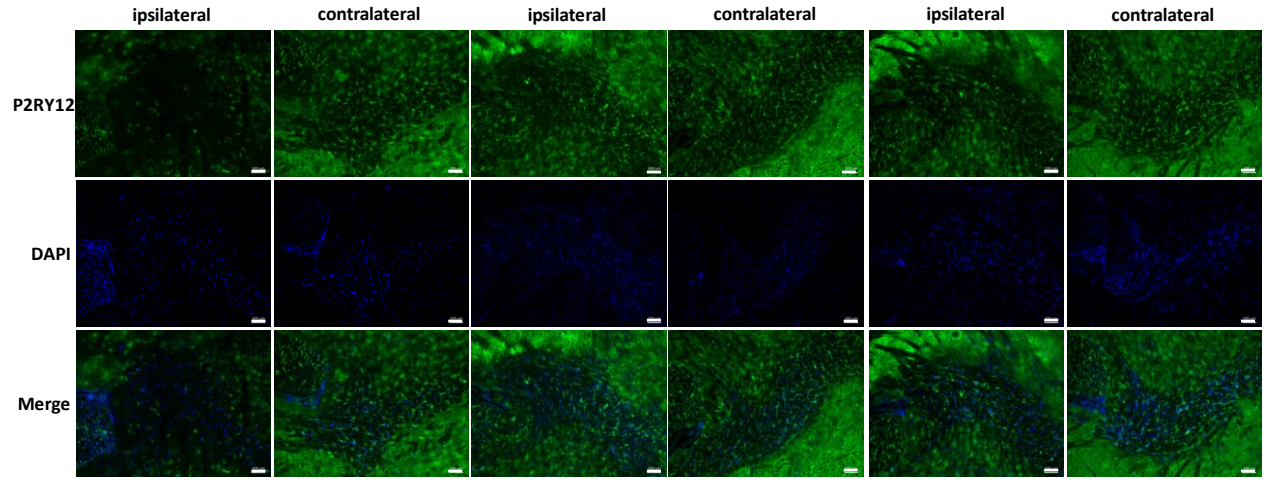

Figure S5: Expression of P2ry12 in mouse brain after MCAO. Immunofluorescence staining of ipsi- and contralateral striatum 3 days post tMCAO (scale bar: 100 µm) showing decreased P2ry12 expression in the affected, ipsilateral hemisphere.

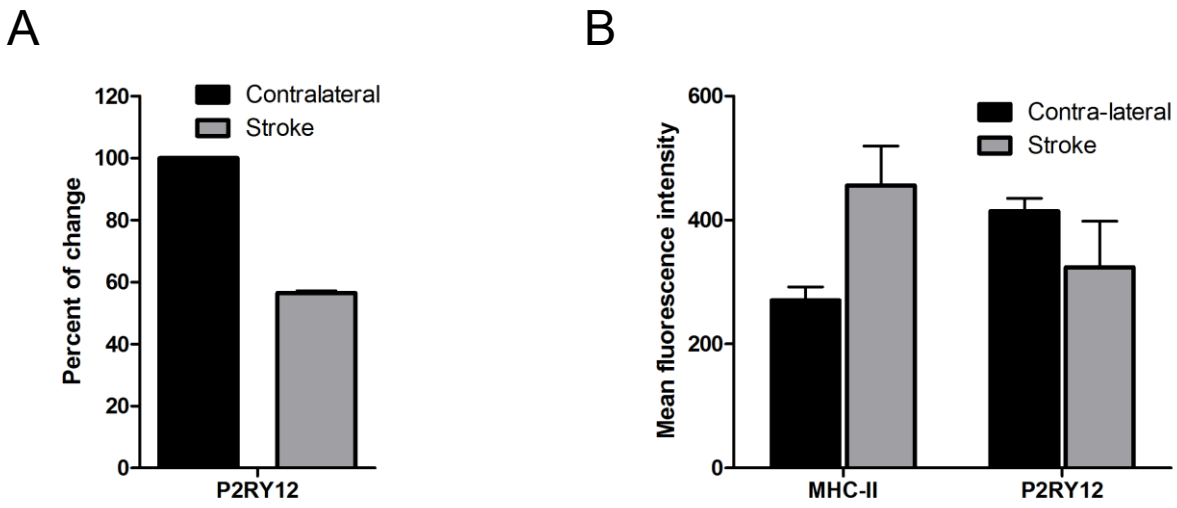

Figure S6: Quantification of autoradiography on stroke and contralateral tissue with [^{11}C]5. (a) Results are represented as percentage of change of binding of [^{11}C]**5** to the stroke sections compared with the contralateral sections (n = 2 sections of 1 stroke patient). (b) Quantification of MHCII and P2RY12 immunofluorescence staining of the sections post autoradiography. Results are represented as mean fluorescence intensity.