**Supplemental figures and legends**

**Figure S1.** Flow cytometric analysis for CD206 in BM cells. After 5 d culture with or without MSCs (in direct or transwell coculture system) and in the presence or absence of GM-CSF (40 ng/ml), BM cells were stimulated with LPS (100 ng/ml) for 18 h and analyzed. Representative flow cytometry histograms and quantitative results for CD206 were shown. The Fluorescence Minus One Control (FMO control) was used.

Data are displayed as mean ± SD and representative of 3 independent sets of experiments (n = 3 to 4 biological replicates in each group per set). A dot depicts data from one biological sample. ****P < 0.0001 by one-way ANOVA and Tukey’s multiple-comparison test.
Figure S2. Heat maps of the cell differentiation-related genes from RNA sequencing on CD11b$^{hi}$Ly6C$^{hi}$Ly6G$^{lo}$, CD11b$^{mid}$Ly6C$^{mid}$Ly6G$^{lo}$, and CD11b$^{lo}$Ly6C$^{lo}$Ly6G$^{lo}$ cells that were sorted as in Figure 5A. The first column (blue box) presents changes in the gene expression levels in CD11b$^{hi}$Ly6C$^{hi}$Ly6G$^{lo}$ cells relative to CD11b$^{lo}$Ly6C$^{lo}$Ly6G$^{lo}$ cells, and the second column (red box) depicts the gene expression changes in CD11b$^{mid}$Ly6C$^{mid}$Ly6G$^{lo}$ cells relative to CD11b$^{lo}$Ly6C$^{lo}$Ly6G$^{lo}$ cells. See ArrayExpress accession E-MTAB-8975.
Figure S3. MSC-induced CD11b<sup>mid</sup>Ly6C<sup>mid</sup>Ly6G<sup>lo</sup> cells do not increase CD4<sup>+</sup>Foxp3<sup>+</sup> Treg.

CD11b<sup>lo</sup>Ly6C<sup>lo</sup>Ly6G<sup>lo</sup> cells, CD11b<sup>mid</sup>Ly6C<sup>mid</sup>Ly6G<sup>lo</sup> cells, and CD11b<sup>hi</sup>Ly6C<sup>hi</sup>Ly6G<sup>lo</sup> cells were sorted as in Figure 5A and stimulated with LPS (100 ng/ml) for 18 h. CD4<sup>+</sup> cells were isolated from the spleen of C57BL/6 mice. The sorted CD11b<sup>lo</sup>Ly6C<sup>lo</sup>Ly6G<sup>lo</sup> cells, CD11b<sup>mid</sup>Ly6C<sup>mid</sup>Ly6G<sup>lo</sup> cells, and CD11b<sup>hi</sup>Ly6C<sup>hi</sup>Ly6G<sup>lo</sup> cells were cocultured in a direct coculture system with CFSE-prelabeled CD4<sup>+</sup> cells on anti-CD3 and anti-CD28 Ab-coated plates for 5 d. The frequency of CD4<sup>+</sup>Foxp3<sup>+</sup>Treg was determined by flow cytometry. Representative cytograms and quantitative results are presented.

Data (mean ± SD) represent 3 independent sets of experiments (n = 2 to 3 in each group per set), and a dot depicts data from one biological sample. ****P < 0.0001 by one-way ANOVA and Tukey’s multiple-comparison test.
**Figure S4.** Flow cytometric analysis for CD4⁺Foxp3⁺ Treg in draining cervical lymph nodes (CLN) in EAU mice at day 21 after treatment with vehicle (Hank's balanced salt solution, BSS), CD11b⁺Ly6C⁺Ly6G⁻ cells, CD11b⁺Ly6C⁻Ly6G⁺ cells, or CD11b⁻Ly6C⁻Ly6G⁻ cells. The cells were prepared as in Figure 5A, stimulated with LPS (100 ng/ml) for 18 h, and injected intravenously into mice right after EAU induction at day 0. Shown are the frequencies of CD4⁺Foxp3⁺ cells out of total CLN cells. A dot indicates data from an individual animal, and data are presented as mean ± SD.