## 1 Supplemental figures and legends

- 2 Figure S1. Flow cytometric analysis for CD206 in BM cells. After 5 d culture with or without
- 3 MSCs (in direct or transwell coculture system) and in the presence or absence of GM-CSF (40
- 4 ng/ml), BM cells were stimulated with LPS (100 ng/ml) for 18 h and analyzed. Representative
- 5 flow cytometry histograms and quantitative results for CD206 were shown. The Fluorescence
- 6 Minus One Control (FMO control) was used.
- 7 Data are displayed as mean ± SD and representative of 3 independent sets of experiments (n =
- 8 3 to 4 biological replicates in each group per set). A dot depicts data from one biological sample.
- 9 \*\*\*\*P < 0.0001 by one-way ANOVA and Tukey's multiple-comparison test.

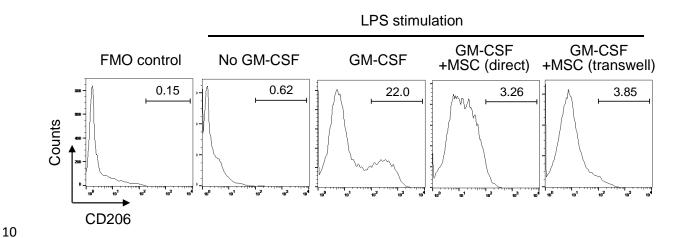
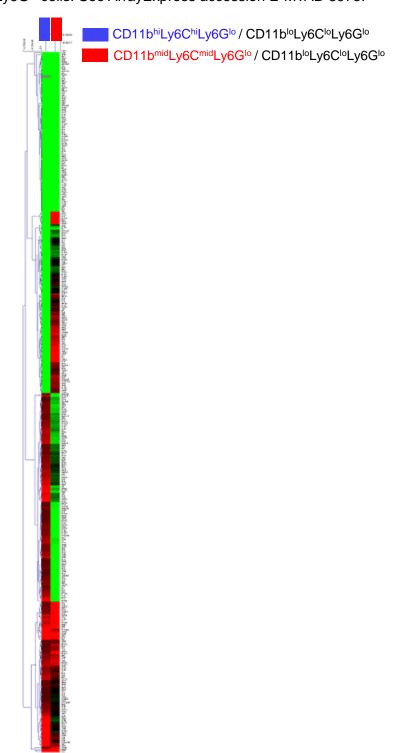


Figure \$2. Heat maps of the cell differentiation-related genes from RNA sequencing on CD11bhiLy6ChiLy6Glo, CD11bmidLy6CmidLy6Glo, and CD11bloLy6CloLy6Glo cells that were sorted as in Figure 5A. The first column (blue box) presents changes in the gene expression levels in CD11bhiLy6ChiLy6Glo cells relative to CD11bloLy6CloLy6Glo cells, and the second column (red box) depicts the gene expression changes in CD11bmidLy6CmidLy6Glo cells relative to

CD11bloLy6CloLy6Glo cells. See ArrayExpress accession E-MTAB-8975.



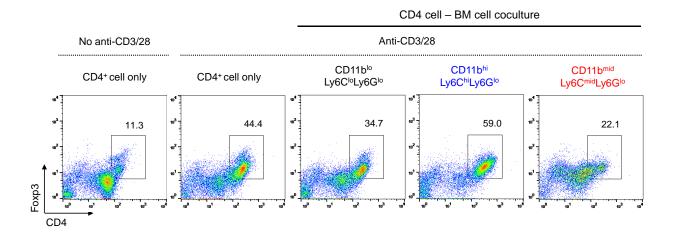
## Figure S3. MSC-induced CD11b<sup>mid</sup>Ly6C<sup>mid</sup>Ly6G<sup>lo</sup> cells do not increase CD4<sup>+</sup>Foxp3<sup>+</sup> Treg.

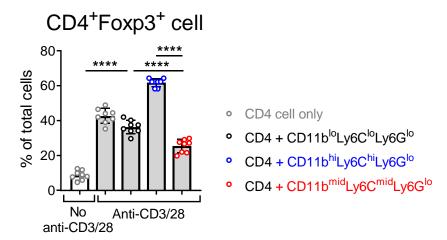
CD11b<sup>lo</sup>Ly6C<sup>lo</sup>Ly6G<sup>lo</sup> cells, CD11b<sup>mid</sup>Ly6C<sup>mid</sup>Ly6G<sup>lo</sup> cells, and CD11b<sup>hi</sup>Ly6C<sup>hi</sup>Ly6G<sup>lo</sup> cells were sorted as in Figure 5A and stimulated with LPS (100 ng/ml) for 18 h. CD4<sup>+</sup> cells were isolated from the 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  $\pm$  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<sup>+</sup>Foxp3<sup>+</sup> Treg in draining cervical lymph nodes (CLN) in EAU mice at day 21 after treatment with vehicle (Hank's balanced salt solution, BSS), 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, or CD11b<sup>hi</sup>Ly6C<sup>hi</sup>Ly6G<sup>lo</sup> 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<sup>+</sup>Foxp3<sup>+</sup> cells out of total CLN cells. A dot indicates data from an individual animal, and data are presented as mean ± SD.

