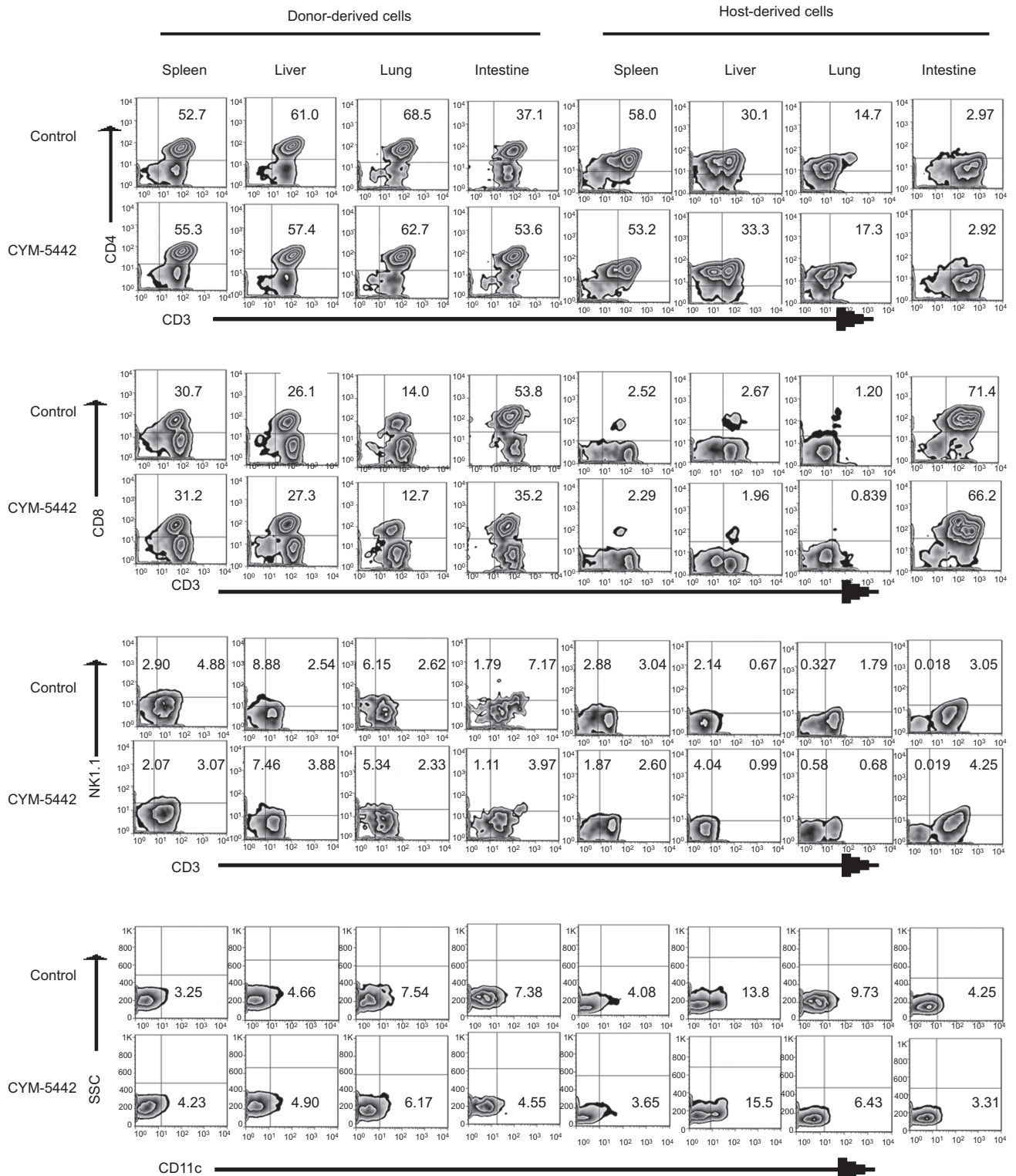
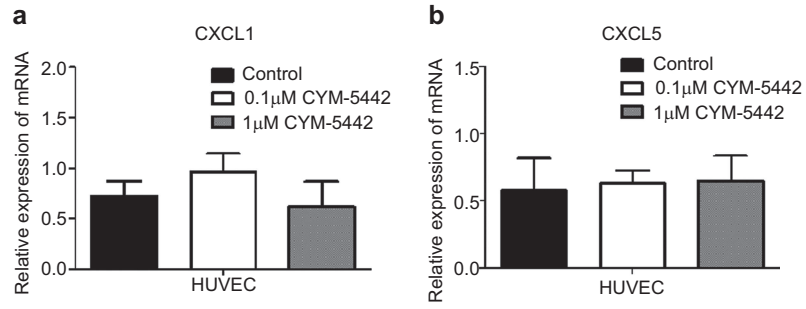


**Supplemental Figure 1** The comparison of CYM and FTY720 treatment in inhibiting aGVHD. FTY720 treatment significantly prolonged the survival of GVHD mice compared to control-treated mice ( $n=8$  per group;  $*P=0.0339$ ). CYM-5442 treatment showed better therapeutic effect than FTY720 at the dose of 3 mg/kg ( $n=8$  per group;  $***P=0.0007$ ). The data are representative of two independent experiments. Data are shown as mean  $\pm$  s.e.m.



**Supplemental Figure 2** Representative flow chart of donor-derived and host-derived CD4<sup>+</sup> T cells, CD8<sup>+</sup> T cells, NK, NKT and DC from CYM-treated and control mice. Donor-derived cells were identified as H2K<sup>b</sup><sup>+</sup> cells and host-derived cells were identified as H2K<sup>d</sup><sup>+</sup> cells, and the cell subsets were analyzed by CD3<sup>+</sup>CD4<sup>+</sup> for CD4<sup>+</sup> T cells, CD3<sup>+</sup>CD8<sup>+</sup> for CD8<sup>+</sup> T cells, CD3<sup>-</sup>NK1.1<sup>+</sup> for NK cells, CD3<sup>+</sup>NK1.1<sup>+</sup> for NKT cells, CD11c<sup>+</sup> for DCs. Percent of donor-derived CD4<sup>+</sup> T cells, CD8<sup>+</sup> T cells, NK, NKT, DC and host-derived CD4<sup>+</sup> T cells, CD8<sup>+</sup> T cells, NK, NKT, DC in the spleen, liver, lung and small intestine have been shown.



**Supplemental Figure 3** CYM did not affect the expression of CXCL1 and CXCL5 in endothelial cells. HUVECs were treated with 0.1  $\mu$ M or 1  $\mu$ M CYM or equal volume of DMSO for 24 h, and mRNA expressions of CXCL1 (**a**) and CXCL5 (**b**) were analyzed by real-time PCR.