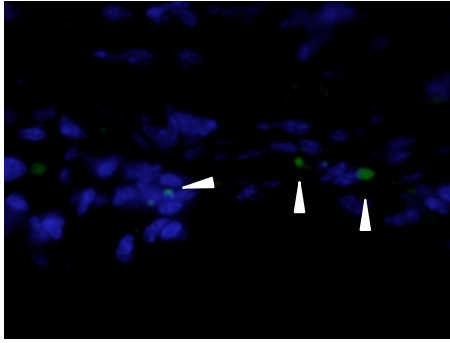
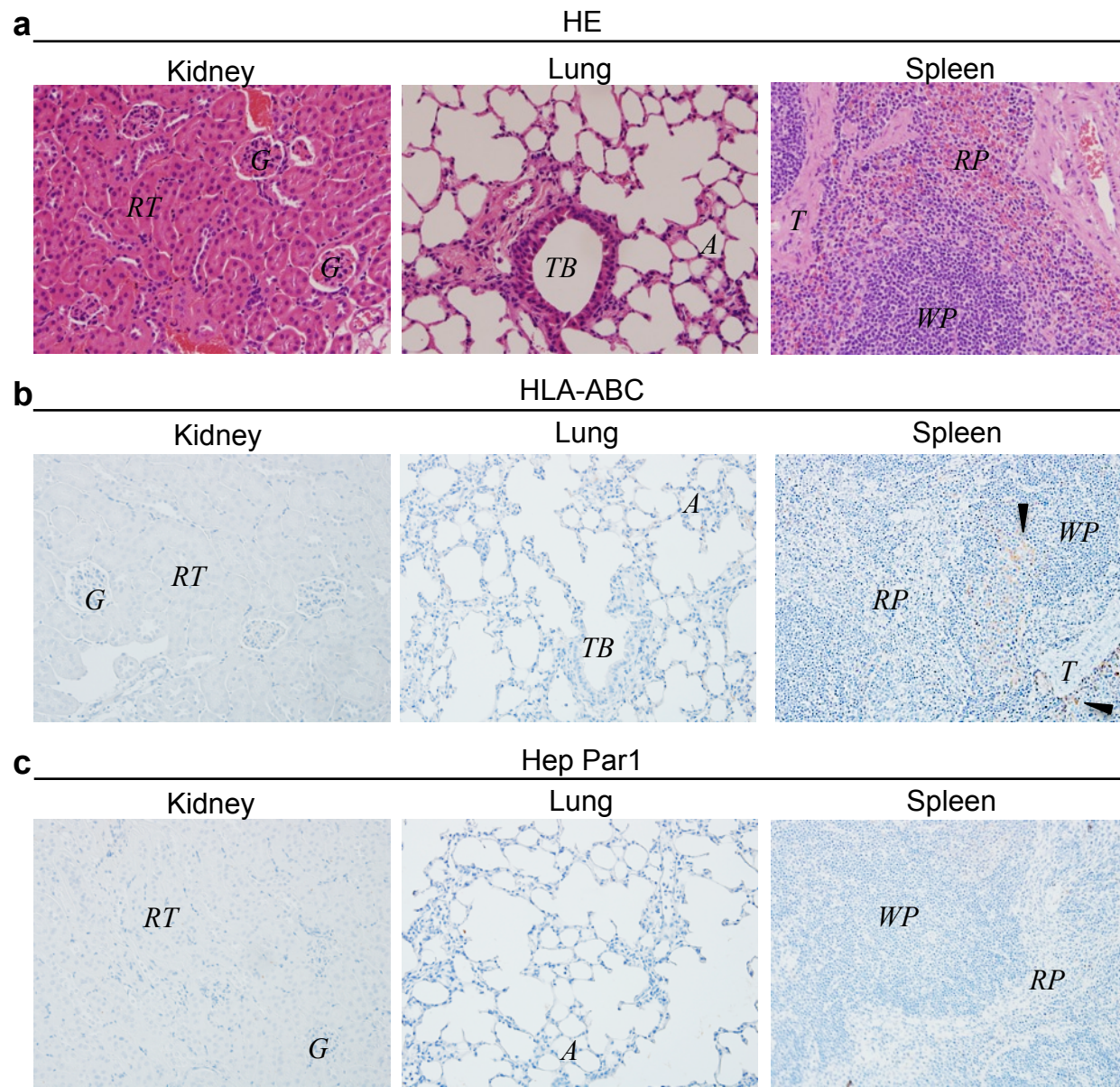


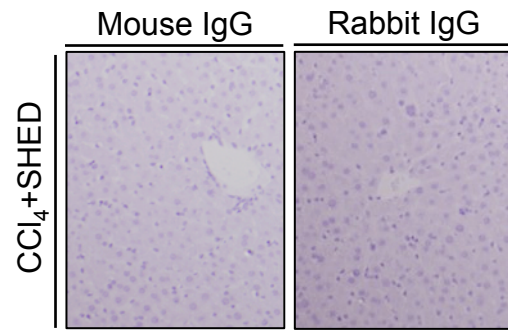
**Additional file2: Figure S1.** Characterization of SHED. **a** Expression of surface markers. **b** Alizarin Red staining. **c** Osteoblast/odontoblast specific gene assay. **d** Safranin O staining. **e** Chondrocyte specific gene assay. **f** Oil Red O staining. **g** Adipocyte specific gene assay.



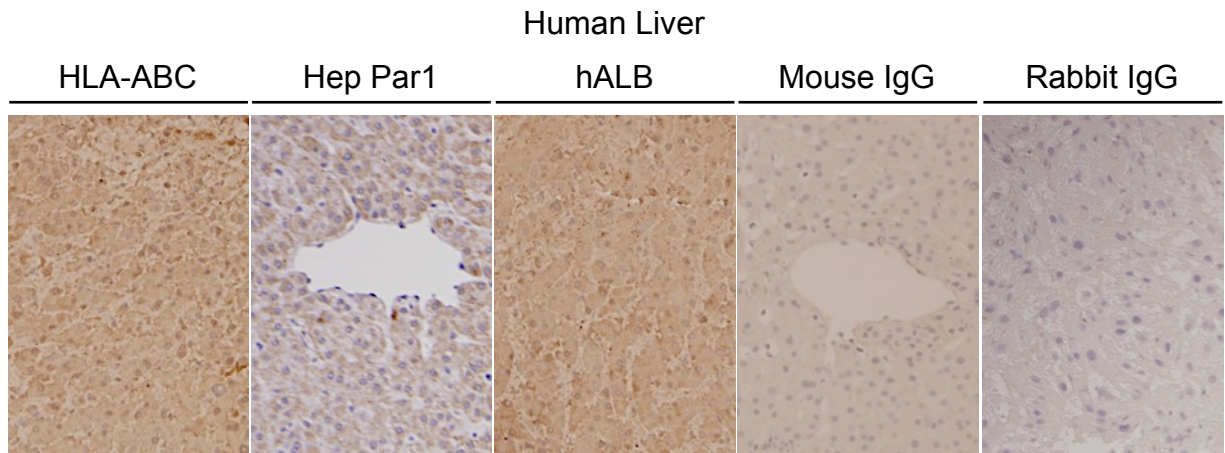
**Figure S2.** Tracing of CFSE-labeled donor SHED (white arrowheads) one day after the transplantation. DAPI staining.



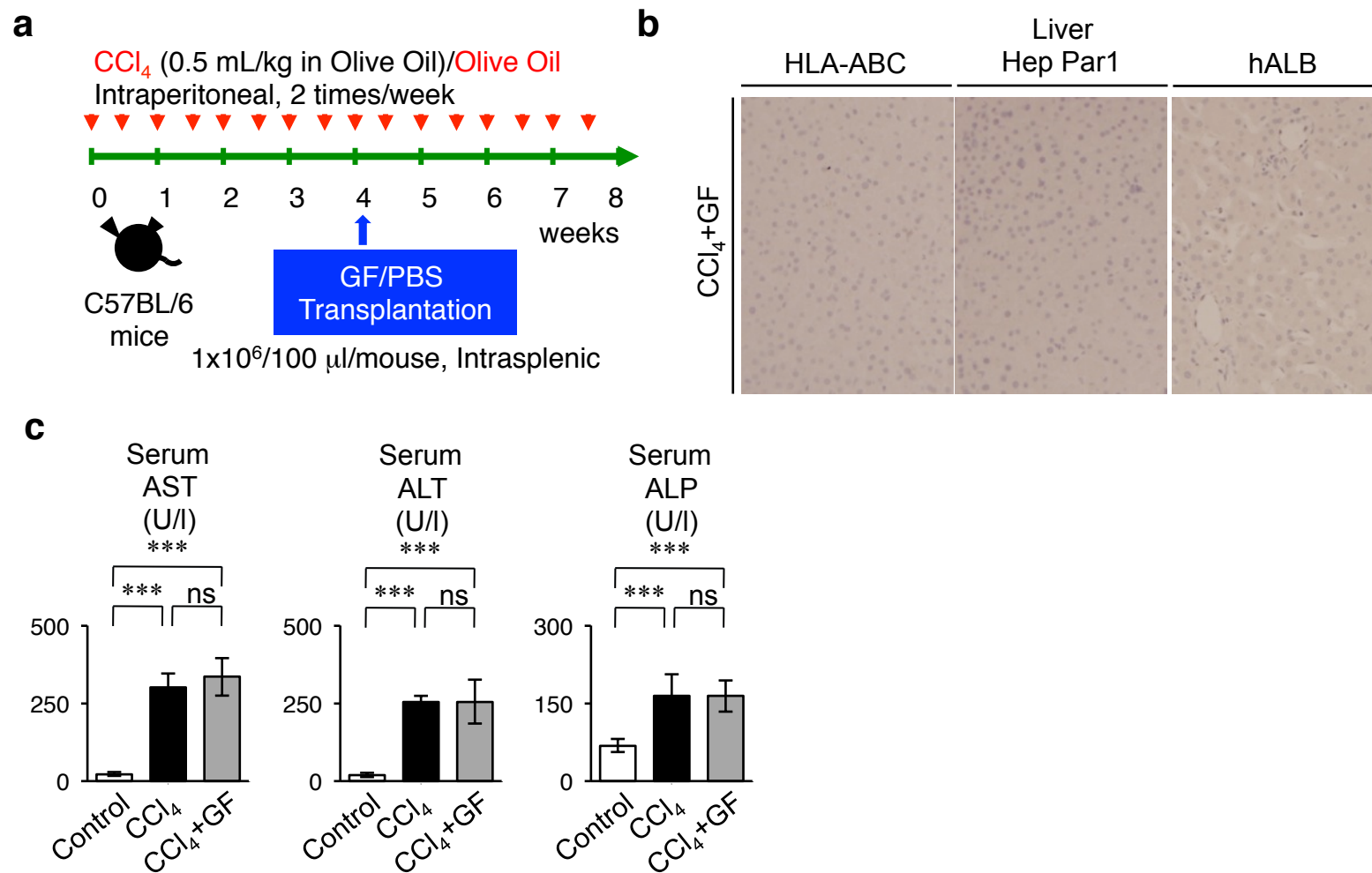
**Figure S3.** Histological analysis of kidney, lung and spleen of SHED transplanted recipient mice. **a** Hematoxylin and eosin (HE) staining. **b, c** Immunohistochemistry. A: alveolous, G: glomerulus, RP: red pulp, RT: renal tube, T: trabecula of spleen, TB: terminal bronchiole, WP: white pulp. Black arrowheads: Immunopositive cells.



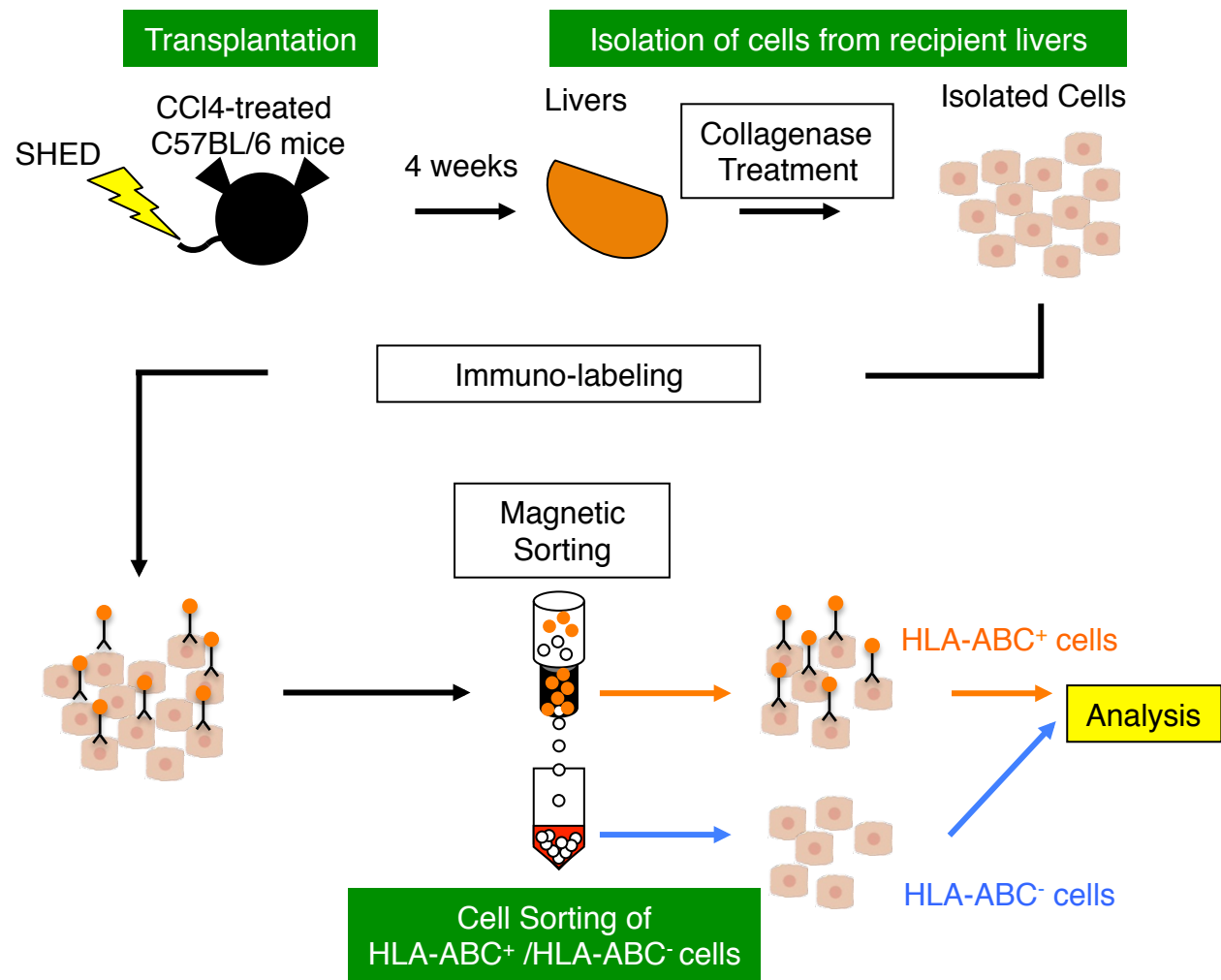
**Figure S4.** Immunohistochemical negative control analysis in SHED-transplanted mouse livers sections.



**Figure S5.** Immunohistochemical positive control analysis in human liver sections.

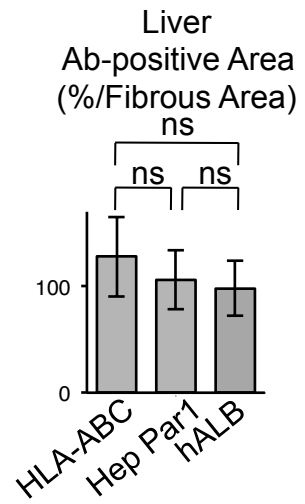


**Figure S6.** Transplantation of human gingival fibroblasts (GFs) into CCl<sub>4</sub>-treated mice. **a** A schema of human GF transplantation in mice. GFs and PBS were transplanted into C57BL/6 mice received with CCl<sub>4</sub> or olive oil only (red arrows). **b** Immunohistochemistry. **c** Serum assays. n=5 for all groups. \*\*\**P*<0.005. ns: no significance. Graph bars show the means ± SD.



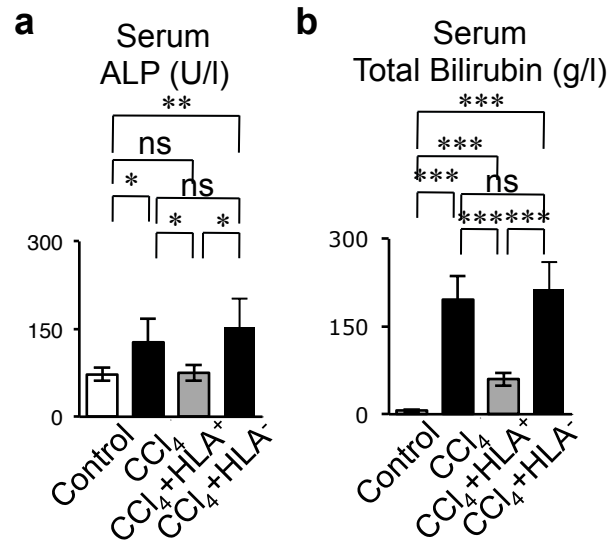
**Figure S7.** A schema of human cell sorting from SHED-transplanted recipient livers. Cells isolated from SHED transplanted recipient livers were immunolabeled, and magnetically sorted into HLA-ABC<sup>+</sup> and HLA<sup>-</sup> cells.



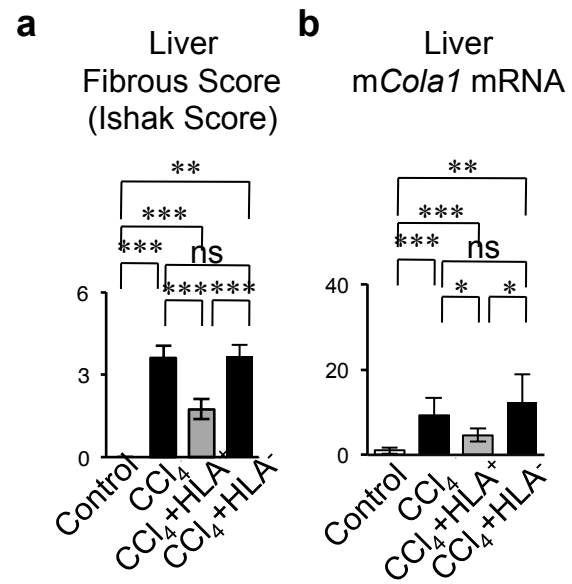


**Figure S8.** HLA-ABC, Hep Par1 or hALB antibody-positive area in the recipient livers of secondary transplanted mice. Immunopositive area is shown as the ratio to fibrous area. n=5 for all groups.





**Figure S9.** Serum assays for the hepatic function in secondary transplanted mice. **a** Serum ALP. **b** Serum total bilirubin. n=5 for all groups. \* $P < 0.05$  and \*\* $P < 0.01$ .



**Figure S10.** Fibrous assay in recipient livers of secondary transplanted mice. **a** Ishak fibrous score. **b** Expression of mouse type I collagen mRNA. n=5 for all groups.