

Description of Additional Supplementary Files

Supplementary Data 1. The clinical characteristics of control and PBC samples, a cohort for single-cell sequencing analysis.

Supplementary Data 2. Marker genes of main cell types in the human liver.

Supplementary Data 3. Marker genes of main cell types in the human PBMC.

Supplementary Data 4. Comparison of the differences in cell abundance for each cell type between the PBC and control groups.

Supplementary Data 5. Marker genes of non-immune cell subpopulations in the human liver.

Supplementary Data 6. Differentially expressed genes in PBC group compared to control group in each human non-immune cell subpopulation.

Supplementary Data 7. Marker genes of myeloid cell subpopulations in the human liver.

Supplementary Data 8. Differentially expressed genes in PBC group compared to control group in each human myeloid cell subpopulation.

Supplementary Data 9. Marker genes of T cell subpopulations in the human liver.

Supplementary Data 10. Differentially expressed genes in PBC group compared to control group in each human liver T cell subpopulation.

Supplementary Data 11. The regulon specificity scores for each regulon in every T cell subset within the liver scRNA-seq data.

Supplementary Data 12. Marker genes of main cell types in the mouse liver.

Supplementary Data 13. Differentially expressed genes in PBC group compared to control group in each mouse liver main cell type.

Supplementary Data 14. Marker genes of myeloid cell subpopulations in the mouse liver.

Supplementary Data 15. Differentially expressed genes in PBC group compared to control group in each mouse liver myeloid cell subpopulation.

Supplementary Data 16. Marker genes of T cell subpopulations in the mouse liver.

Supplementary Data 17. Differentially expressed genes in PBC group compared to control group in each mouse liver T cell subpopulation.

Supplementary Data 18. The regulon specificity scores for each regulon in every T cell subset within the liver scRNA-seq data.