**Wang/Xu Figure S3**

(a) FGB, SOX9, DAPI, Merge

(b) Liver, Brain, Heart, Lung, Stomach, Gut

(c) E14.5, Fgb-CreERT2, Rosa26-tdTomato

(d) 

|          | ΔCt (Expression relative to Actb) |
|----------|-----------------------------------|
| tdTomato | 0.014%                            |
| tdTomato⁺| 0.372%                            |
| tdTomato⁻| 5.77%                             |

tdTomato (※ = 21; n = 2) tdTomato⁺ (CreERT2; Fgb⁺)/CreERT2 = 97.7%) (※ = 44; n = 2)
Supplementary information, Fig. S3 Examination of labeling efficiency of *Fgb-Cre<sup>ERT2</sup>* transgenic mice. **a** Immunofluorescence showing the expression and distribution of FGB and SOX9 in the W7 human (H-W7) fetal liver. The yellow arrowhead indicates FGB⁺SOX9⁺ cholangiocytes. Scale bars, 20 μm. **b** Morphologies and tdTomato signals in several major organs of E17.5 WT and *Fgb-Cre<sup>ERT2</sup>;Rosa26-tdTomato* mice. Scale bars, 5 mm. **c** FACS gating of tdTomato⁻ and tdTomato⁺ cells in E14.5 WT and *Fgb-Cre<sup>ERT2</sup>;Rosa26-tdTomato* mice. **d** Violin plots showing the expression levels of Cre<sup>ERT2</sup>, Fgb, Alb, and Afp in tdTomato⁻ and tdTomato⁺ cells from E14.5 *Fgb-Cre<sup>ERT2</sup>;Rosa26-tdTomato* mice quantified by single-cell RT-qPCR. Each dot represents a single cell. #, number of single cells. n, number of embryos.