Young Plasma Attenuated Chronic Kidney Disease Progression after Acute Kidney Injury by Inhibiting Inflammation in Mice

Shi-Yao Wei, Yu-Hsiang Chou, Fan-Chi Chang, Shu-Yi Huang, Chun-Fu Lai, Shuei-Liong Lin

SUPPLEMENTARY DATA



Supplementary Figure 1. Tertiary lymphoid tissues developed in the aged kidneys. (A) Representative Periodic acid-Schiff (PAS) staining results show a tertiary lymphoid tissue (TLT) delineated by a yellow dashed line in the kidney of a 15- month-old (15M) *Col1a1-GFP^{Tg}* mouse, not in the kidney of a 2M mouse. Original magnification, ×200. Scale bar: 100 μ m. (B) Dot charts show the quantification of TLT size and number per field taken at x200. *P < 0.05 and **P < 0.01 vs. 2M mice by Kruskal-Wallis test with Dunn's test. N = 5 mice per group. (C) Dot charts show the relative expression of *Cxcl13* and *Ccl19* genes in the kidneys of mice at different ages. The expression was assessed by quantitative PCR and normalized by *Gapdh*. *Cxcl13*, *Ccl19*, and *Gapdh* encoded chemokine C-X-C motif ligand 13, C-C motif ligand 19, and glyceraldehyde 3-phosphate dehydrogenase, respectively. The expression was relative to that of 2M mice. *P<0.05, **P<0.01 vs. 2M mice by Kruskal-Wallis test with Dunn's test. N = 5 mice per group.

SUPPLEMENTARY DATA



Supplementary Figure 2. Tertiary lymphoid tissues developed in the kidneys after acute injury. (A) Experimental schema shows acute kidney injury (AKI)-induced by right nephrectomy (Nx) followed by ischemia-reperfusion injury (IRI) to the left kidney in 2-month-old *Col1a1-GFP^{Tg}* mice. Mice after right Nx only were used as control (Con). AKI and Con mice were euthanized and analyzed at the indicated time points. (B) Representative images show the TLTs with Col1a1-GFP⁺ pericytes, CD3⁺ T cells, and B220⁺ B cells in the kidney on day 30 after AKI. Original magnification, ×400. Scale bar: 25 \Box m. (C) Dot charts show the quantification of TLT size and number per field taken at x200. **P < 0.01 by Mann-Whitney test at the indicated time points. N = 5 mice per group. (D, E) Representative images show the TLT with positive Ki67 staining in CD3⁺ T cells (D) or B220⁺ B cells (E) in the kidney on day 30 after AKI. Original magnification, ×400. Scale bar: 25 μ m.