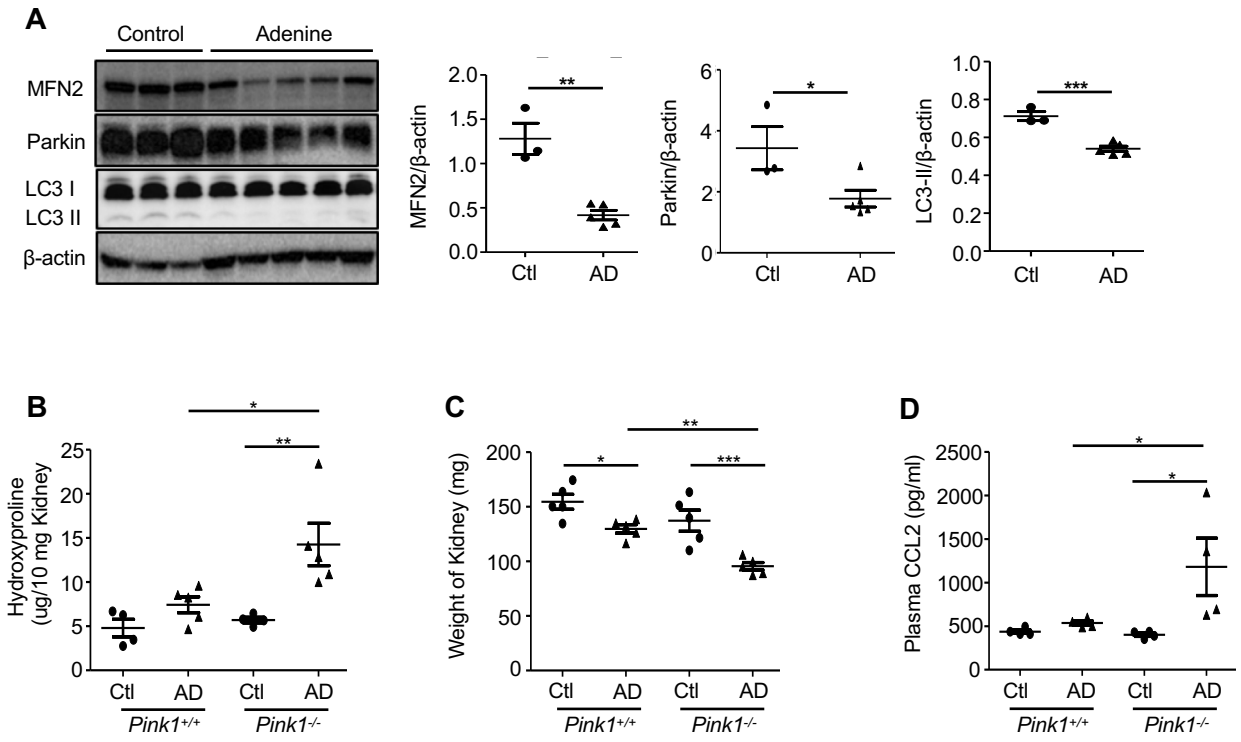
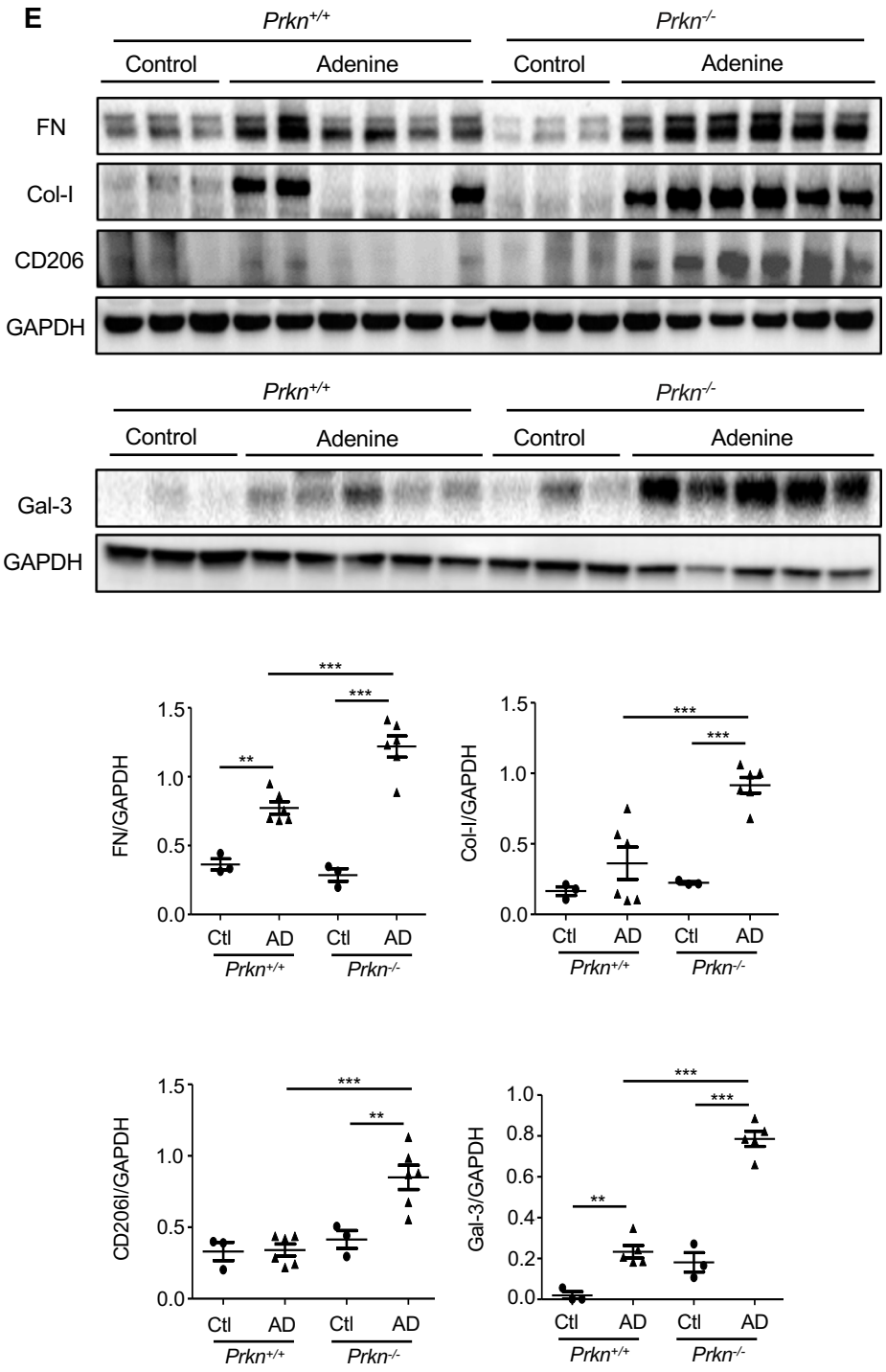
**Supplemental Figure 1**



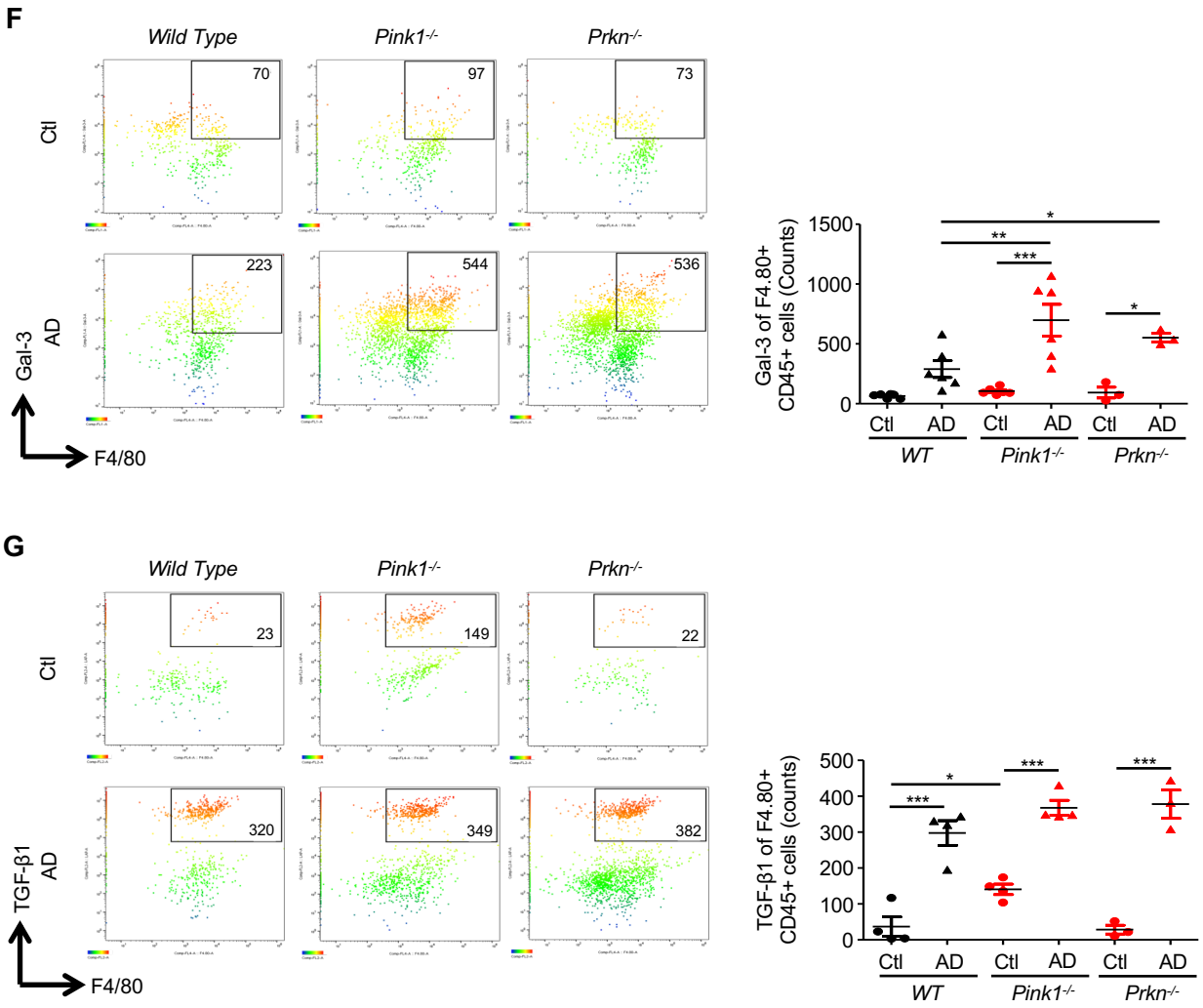

**Supplemental Figure 1. PINK1 and Parkin deficiency enhances kidney damage and fibrosis in adenine (AD) model. A)** Western blot and densitometry analysis for MFN2, Parkin, and LC3 normalized to β-actin in the kidney from mice fed with control (Ctl, *n* = 3 per group) or adenine (AD, *n* = 5 per group) diet for 14 days. Data are mean ± SEM. *P< 0.05, **P<0.01 and ***P<0.001, analyzed by student's unpaired 2-tailed *t*-test **B)** Hydroxyproline content in the kidney from *Pink1*$^{+/+}$ and *Pink1*$^{-/-}$ mice fed with Ctl (*n* = 4 per group) or AD (*n* = 5 per group) diet for 28 days. **C)** Weight of kidney from *Pink1*$^{+/+}$ and *Pink1*$^{-/-}$ mice (*n* = 5 per group) fed with Ctl or AD diet for 28 days. **D)** Circulating chemokine CCL2 levels in the plasma samples obtained from *Pink1*$^{+/+}$ and *Pink1*$^{-/-}$ mice (*n* = 4 per group) fed with Ctl or AD diet for 28 days were determined by ELISA.

**Supplemental Figure 1E**



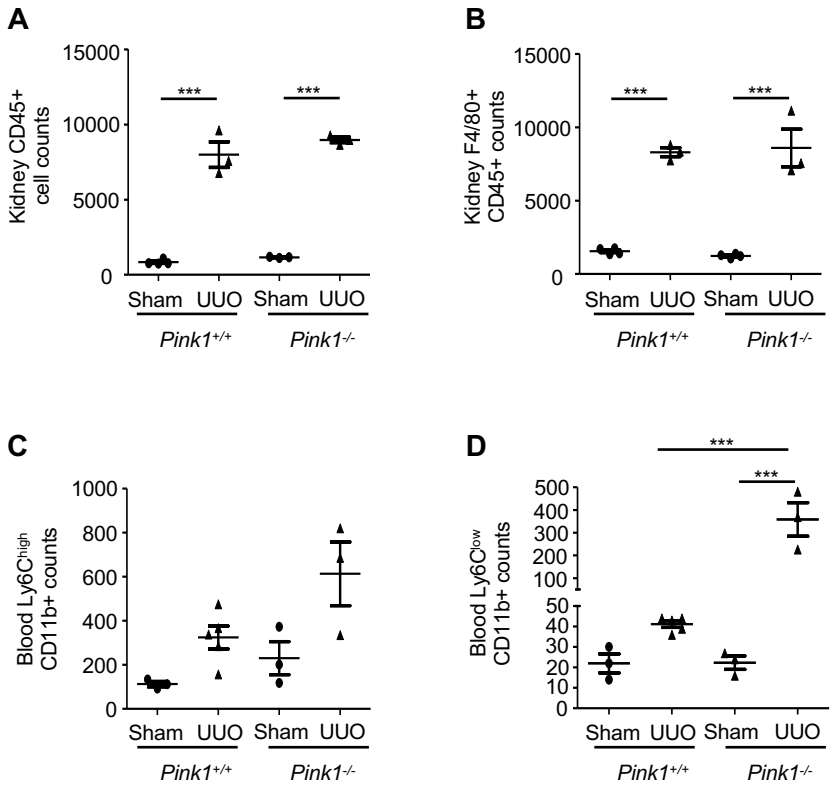

**Supplemental Figure 1. E)** Western blot and densitometry analysis for the expression of fibronectin (FN), Collagen-I (Col-I), CD206, and Galectin-3 (Gal-3) normalized to GAPDH on kidney from *Prkn*$^{+/+}$ and *Prkn*$^{-/-}$ mice fed with control (Ctl, $n$ = 3 per group) or adenine (AD, $n \geq 5$ per group) diet for 14 days. Data are mean ± SEM. *P< 0.05, **P<0.01 and ***P<0.001, analyzed by one-way ANOVA (B, C, D, E).

## Supplemental Figure 1F and 1G



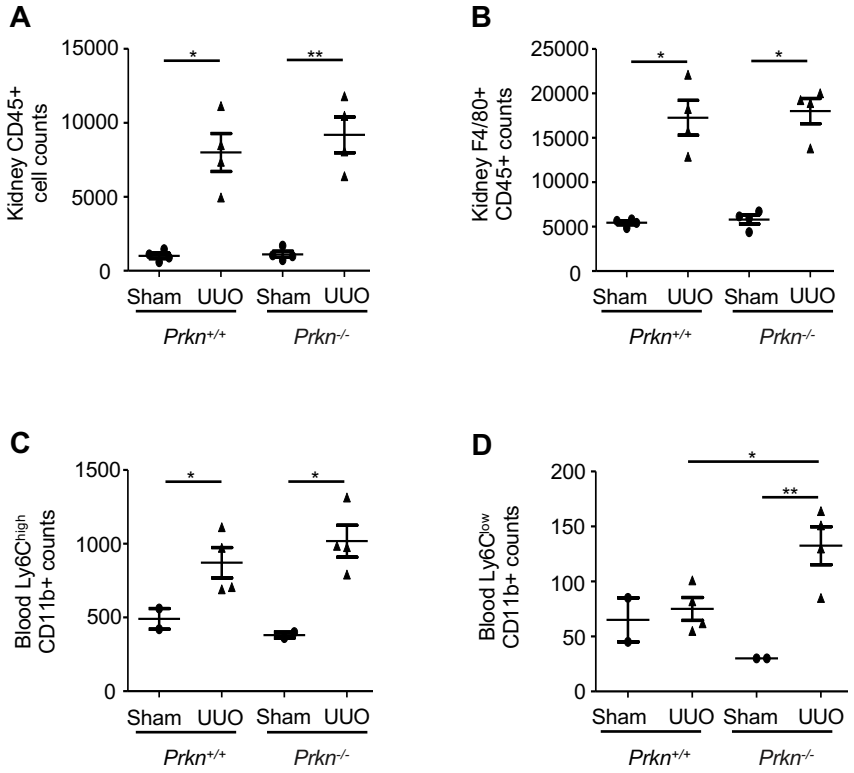

**Supplemental Figure 1. F and G) PINK1 and Parkin deficiency enhances kidney damage and fibrosis in adenine (AD) model. F)** Flow cytometric data showing the numbers galectin-3 (Gal-3)+ F4/80+ cells in the kidney from wild type (*n* = 6 per group) *Pink1*$^{-/-}$ (*n* = 6 per group) and *Prkn*$^{-/-}$ (*n* = 3 per group) mice 28 days after control (Ctl) or adenine (AD) diet. The Gal-3+ F4/80+ cells were gated on CD45+ SSC low cells (not shown). **G)** Flow cytometric data showing the numbers of TGF-β1+ F4/80+ cells in the kidney from wild type (*n* = 4 per group), *Pink1*$^{-/-}$ (*n* = 4 per group) and *Prkn*$^{-/-}$ (*n* = 3 per group) mice 28 days after Ctl or AD diet. The TGF-β1+ F4/80+ cells were gated on CD45+ SSC low cells (not shown). The data are representative of three independent experiments and are mean ± SEM. *P< 0.05, **P<0.01 and ***P<0.001, analyzed by one-way ANOVA (B-G).

**Supplemental Figure 2**



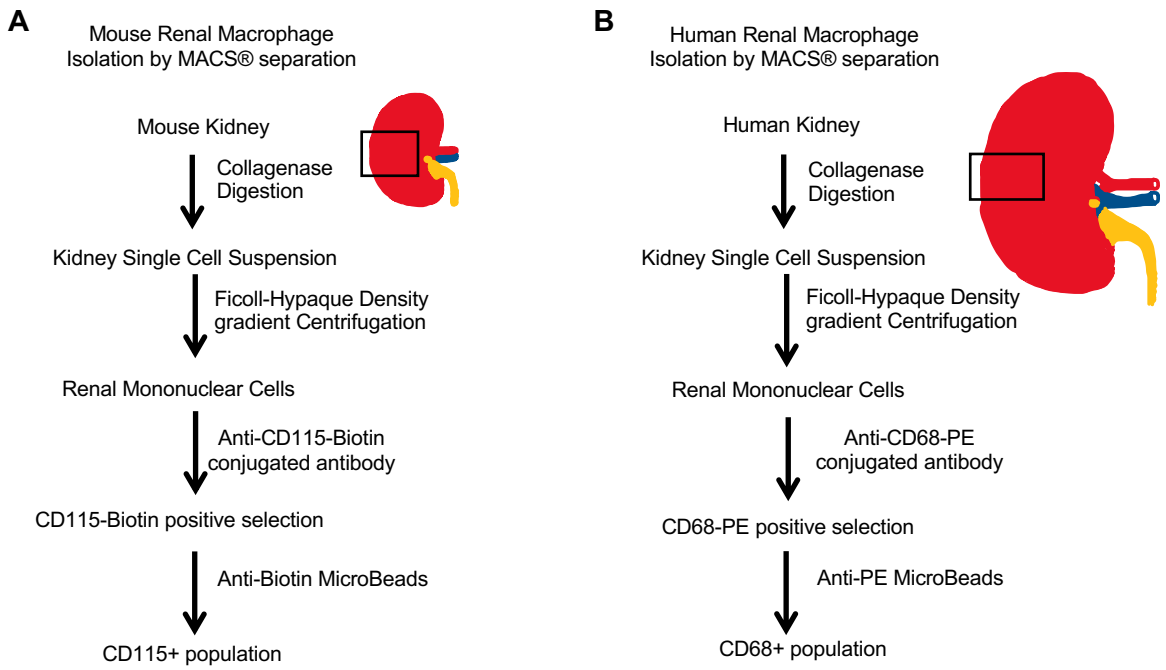

**Supplemental Figure 2. Loss of PINK1 amplifies frequency of circulating Ly6C$^{low}$ monocytes in experimental kidney fibrosis. A and B)** Quantitative flow cytometric analysis showing the numbers of CD45+ mononuclear cells (A) and F4/80+ CD45+ phagocytic population (B) in the kidney from *Pink1*$^{+/+}$ and *Pink1*$^{-/-}$ mice 7 days after sham (*n* = 4 per group) or UUO (*n* = 3 per group) surgery**. C and D)** Flow cytometric analysis showing the numbers of circulating Ly6C$^{high}$ CD11b+ (C) and Ly6C$^{low}$ CD11b+ (D) cells gated from CD45+ cells (not shown) from the peripheral blood from *Pink1*$^{+/+}$ and *Pink1*$^{-/-}$ mice after 7 days of sham *(n* = 3 per group) or UUO (*n* = 5 and 3 per group) surgery**.** Data are shown as mean ± SEM. ***P<0.001, analyzed by one-way ANOVA.

**Supplemental Figure 3**




**Supplemental Figure 3. Parkin deficiency promotes frequencies of circulating Ly6C$^{low}$ monocytes in experimental kidney fibrosis. A and B)** Quantitative flow cytometric data showing the numbers of CD45+ mononuclear cells (A) and F4/80+ CD45+ phagocytic population (B) in kidney from *Prkn*$^{+/+}$ and *Prkn*$^{-/-}$ mice ($n$ = 4 per group) after 7 days of sham or UUO surgery. **C and D)** Flow cytometric analysis showing the numbers of circulating Ly6C$^{high}$ CD11b+ (C) and Ly6C$^{low}$ CD11b+ (D) cells gated from CD45+ cells (not shown) from the peripheral blood from *Prkn*$^{+/+}$ and *Prkn*$^{-/-}$ mice after 7 days of sham ($n$ = 2 per group) or UUO ($n$ = 4 per group) surgery. Data are mean ± SEM. *P< 0.05, and **P<0.01 analyzed by one-way ANOVA.

**Supplemental Figure 4**




**Supplemental Figure 4**. Isolation of macrophages from kidney. **A)** Schema showing the isolation of macrophages from mouse kidney cells using Ficoll-Hypaque density gradient centrifugation followed by CD115 positive selection through magnetic-activated cell sorting (MACS). **B)** Isolation of macrophages from human kidney using density gradient centrifugation and subsequently MACS cell separation protocol using CD68 positive selection.