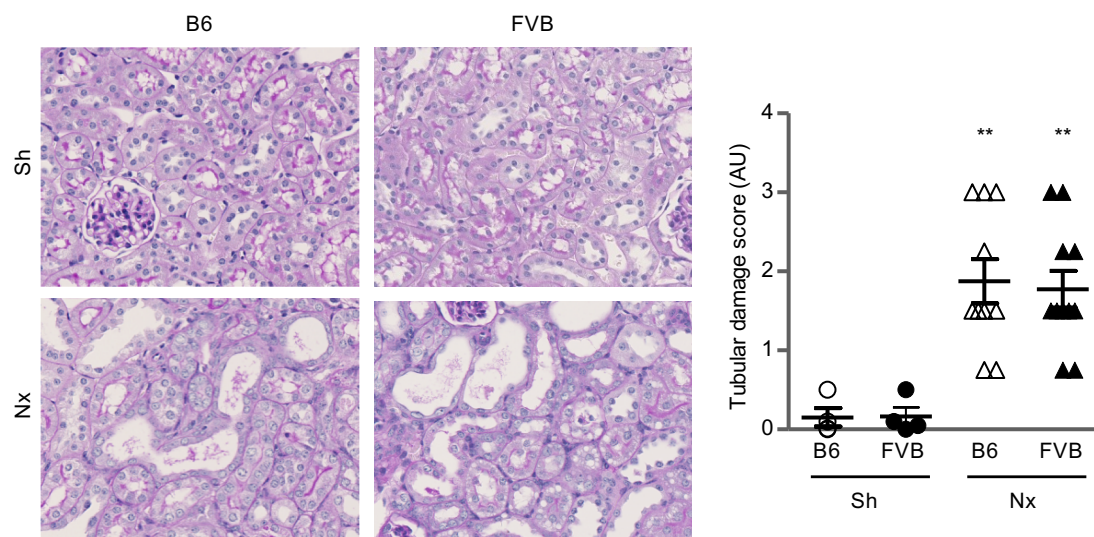
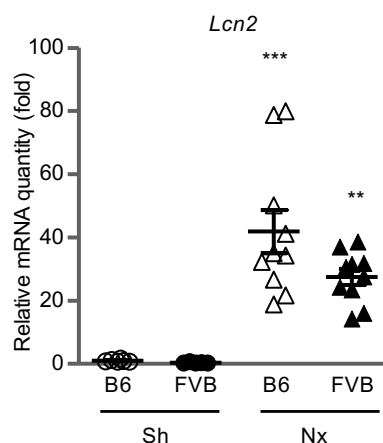
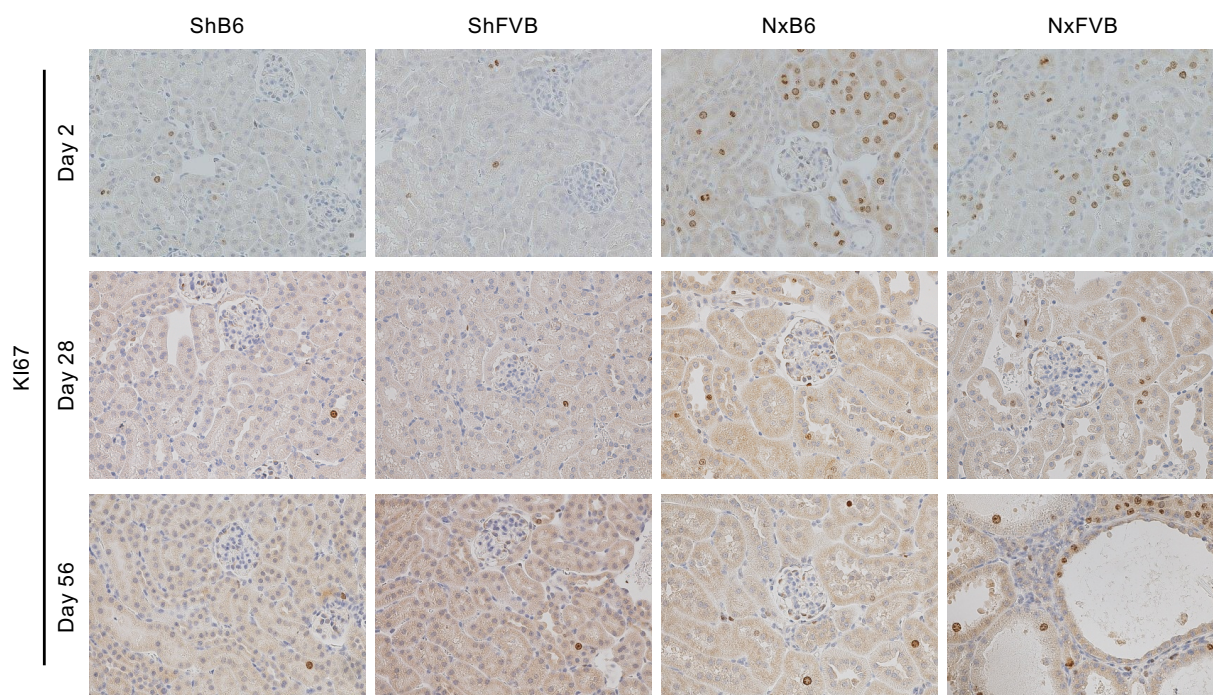
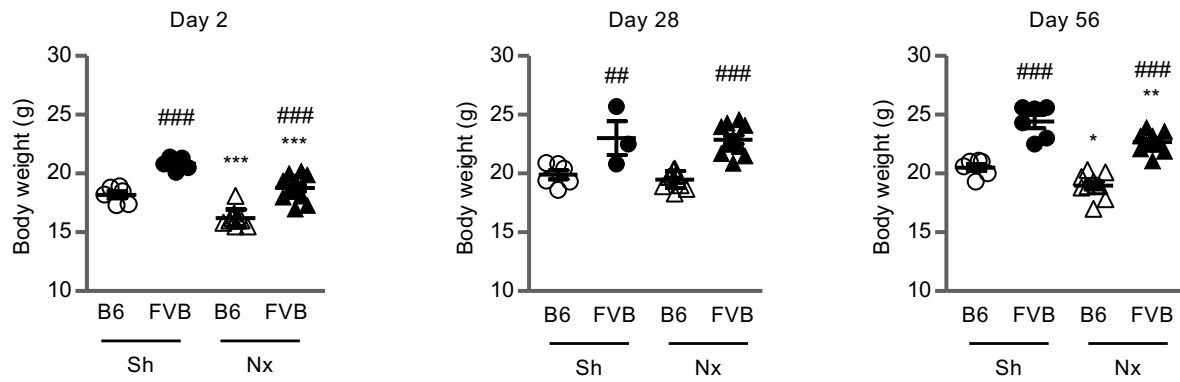
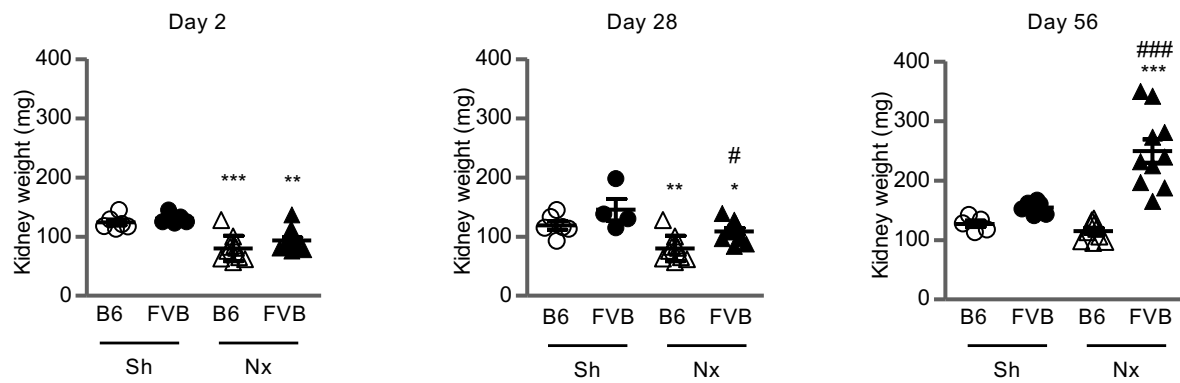
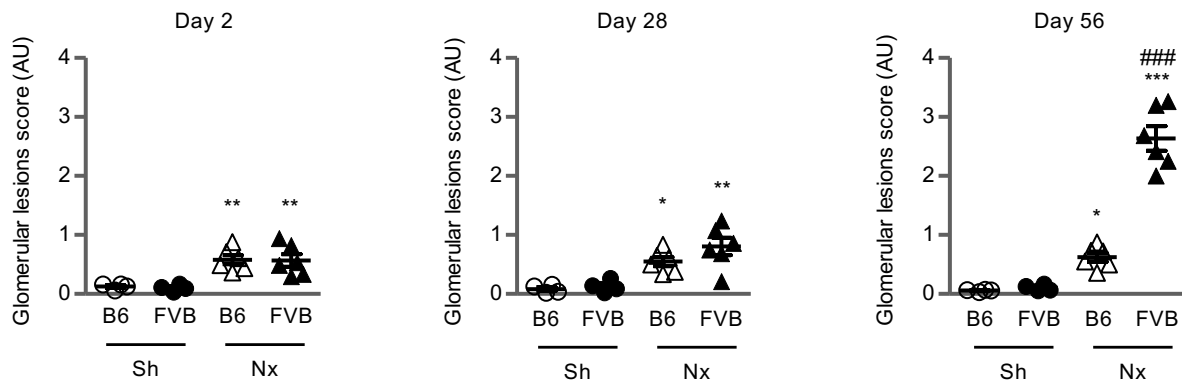
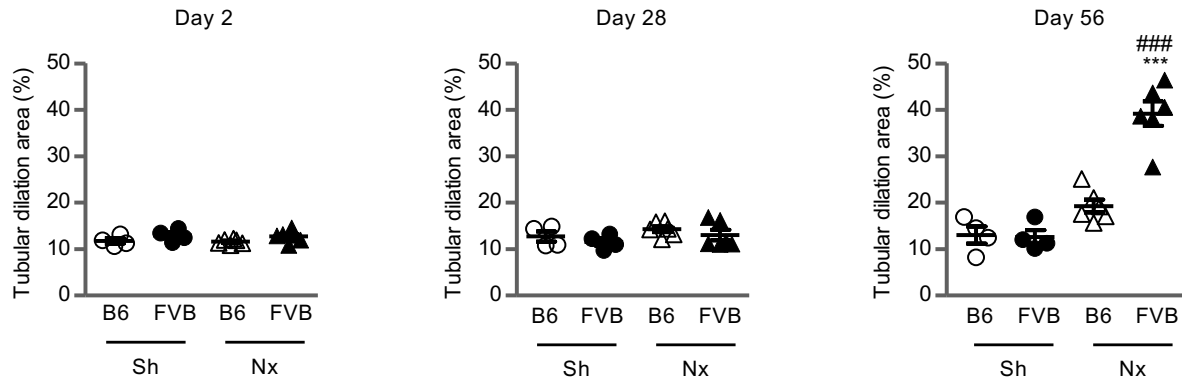
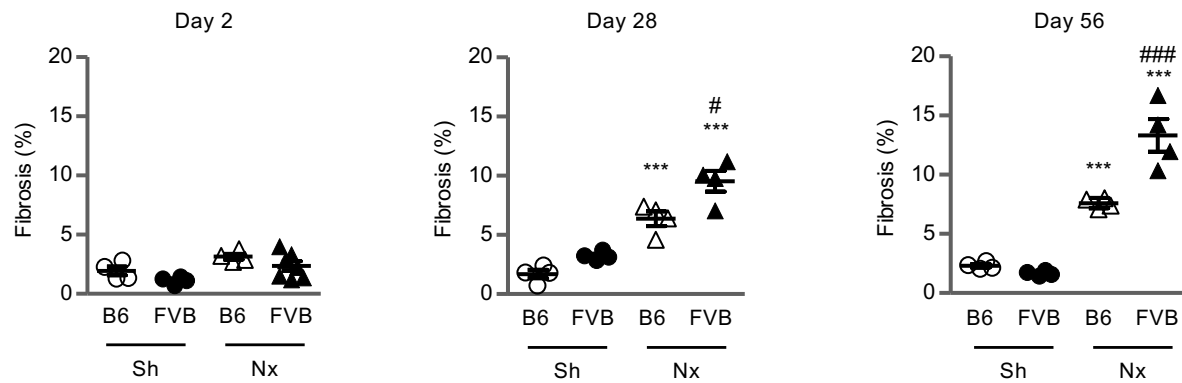


A**B****C**

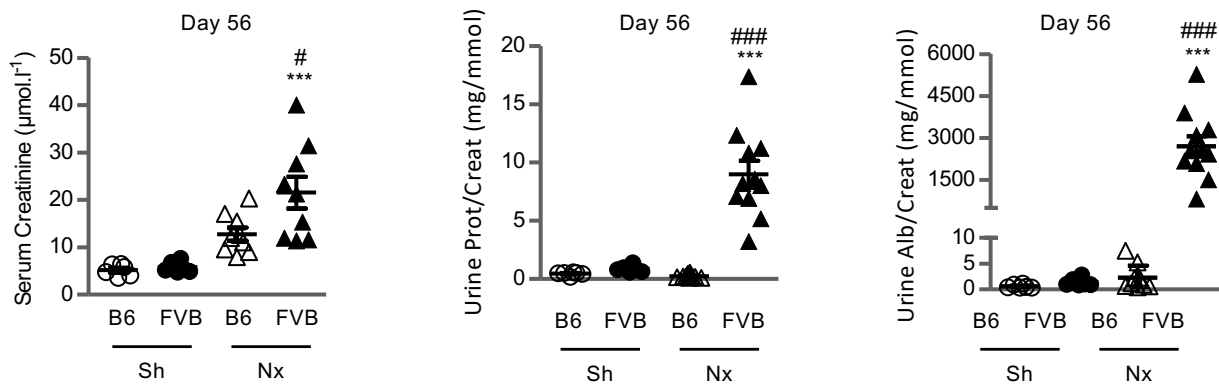
Supplemental Figure 1. Tubular injury and cell proliferation after nephron reduction. (A) Representative images stained with PAS (left panels, original magnification, X400) and quantification (right panel) of tubular lesions in FVB and B6 mice 2 days after sham-operation (Sh) or subtotal nephrectomy (Nx). n = 4-6 and n = 10-12 for Sh and Nx, respectively in each strain. Data are means ± SEM. ANOVA was followed by the Tukey–Kramer test. Nx versus Sh mice: ** P < 0.01. **(B)** mRNA expression of *Lcn2* in FVB and B6 mice 2 days after Sh or Nx (n = 5-6 and n = 10 for Sh and Nx, respectively in each strain). Data are means ± SEM. ANOVA was followed by the Tukey–Kramer test. Nx versus Sh mice: ** P < 0.01, *** P < 0.001. **(C)** Representative cortical sections from FVB and B6 mice 2, 28, and 56 days after Sh or Nx stained with anti- KI-67 antibody (original magnification, X200; n = 4-6 and n = 10-12 for Sh and Nx, respectively in each strain at each time point).

A**B**

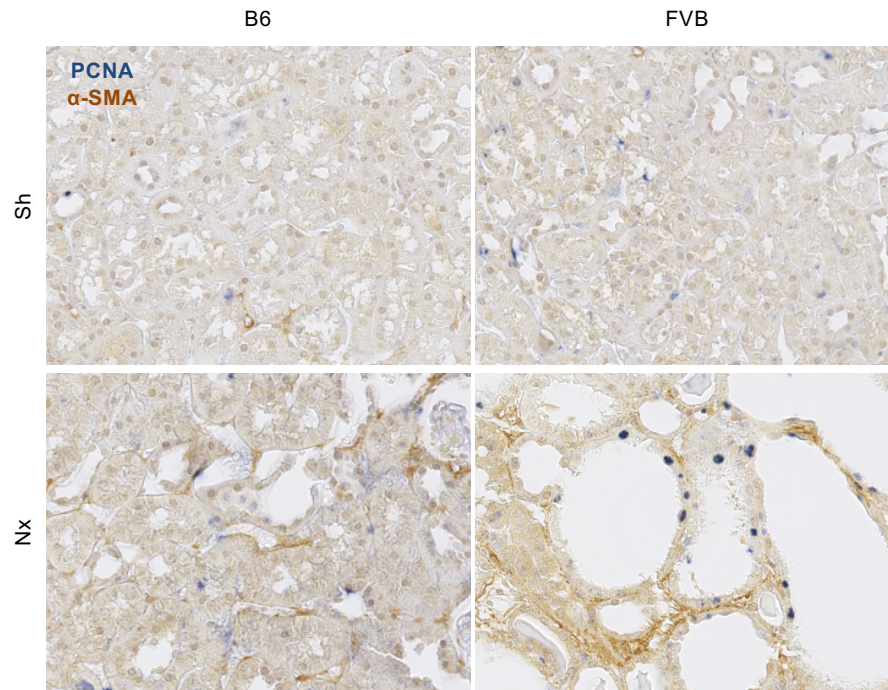
Supplemental Figure 2. Time-course analysis of body and kidney weight. (A) Body weight and **(B)** kidney weight in B6 and FVB mice 2, 28, and 56 days after sham-operation (Sh) or subtotal nephrectomy (Nx). $n = 4-6$ and $n = 9-12$ for Sh and Nx, respectively in each strain at each time point. Data are means $\pm$ SEM. ANOVA was followed by the Tukey–Kramer test. Nx versus Sh mice: * $P < 0.05$, ** $P < 0.01$, *** $P < 0.001$; FVB versus B6 mice: # $P < 0.05$, ## $P < 0.01$, ### $P < 0.001$.

A**B****C**

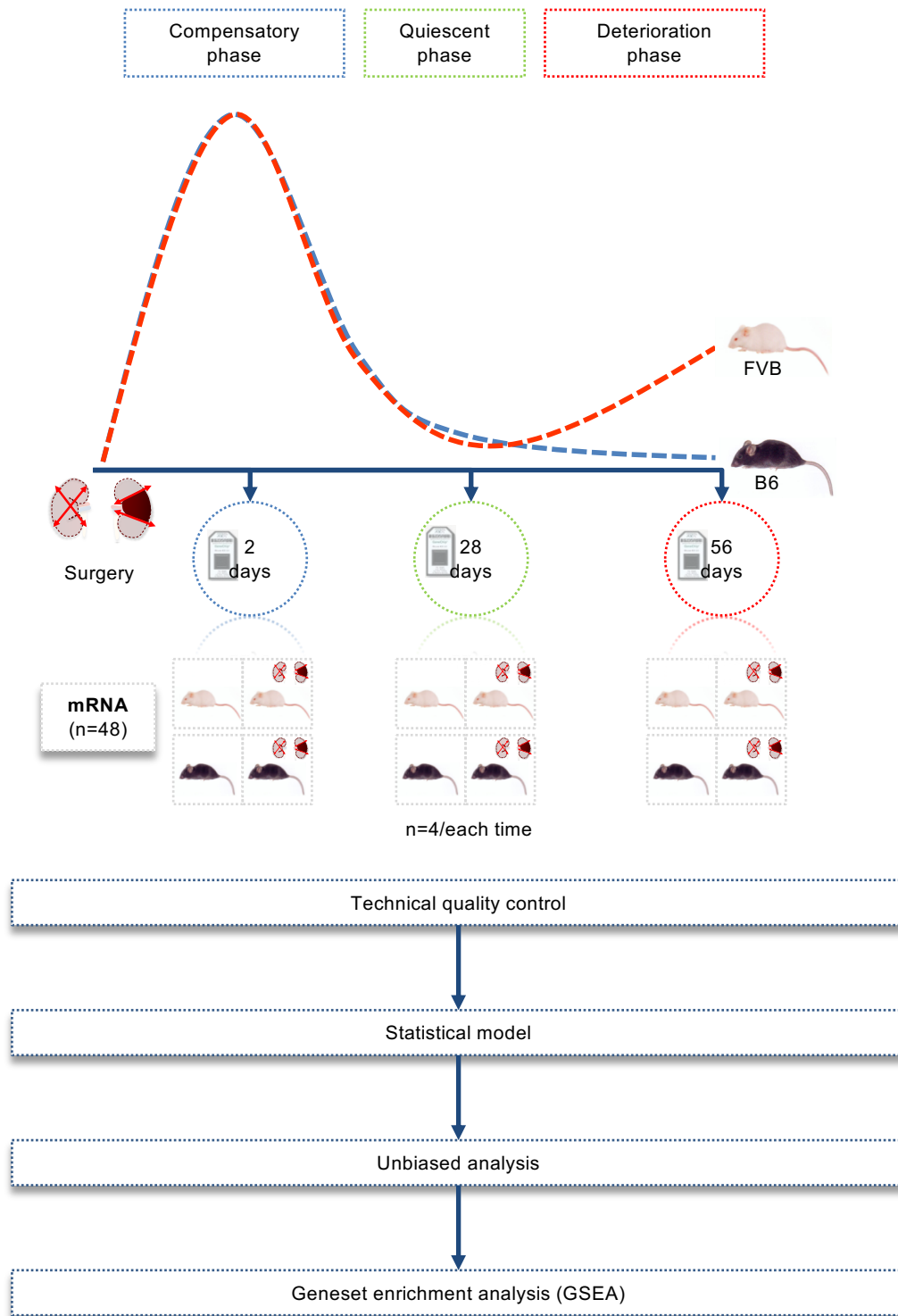
Supplemental Figure 3. Time-course quantification of renal lesions. (A) Glomerular lesions score, **(B)** tubular dilatation area and **(C)** fibrosis score of kidneys from FVB and B6 mice 2, 28, and 56 days after sham-operation (Sh) or subtotal nephrectomy (Nx). $n = 4$ and 6 for Sh and Nx, respectively in each strain at each time point. Data are means $\pm$ SEM. ANOVA was followed by the Tukey–Kramer test. Nx versus Sh mice: * $P < 0.05$, ** $P < 0.01$, *** $P < 0.001$; FVB versus B6 mice: # $P < 0.05$, ### $P < 0.001$.



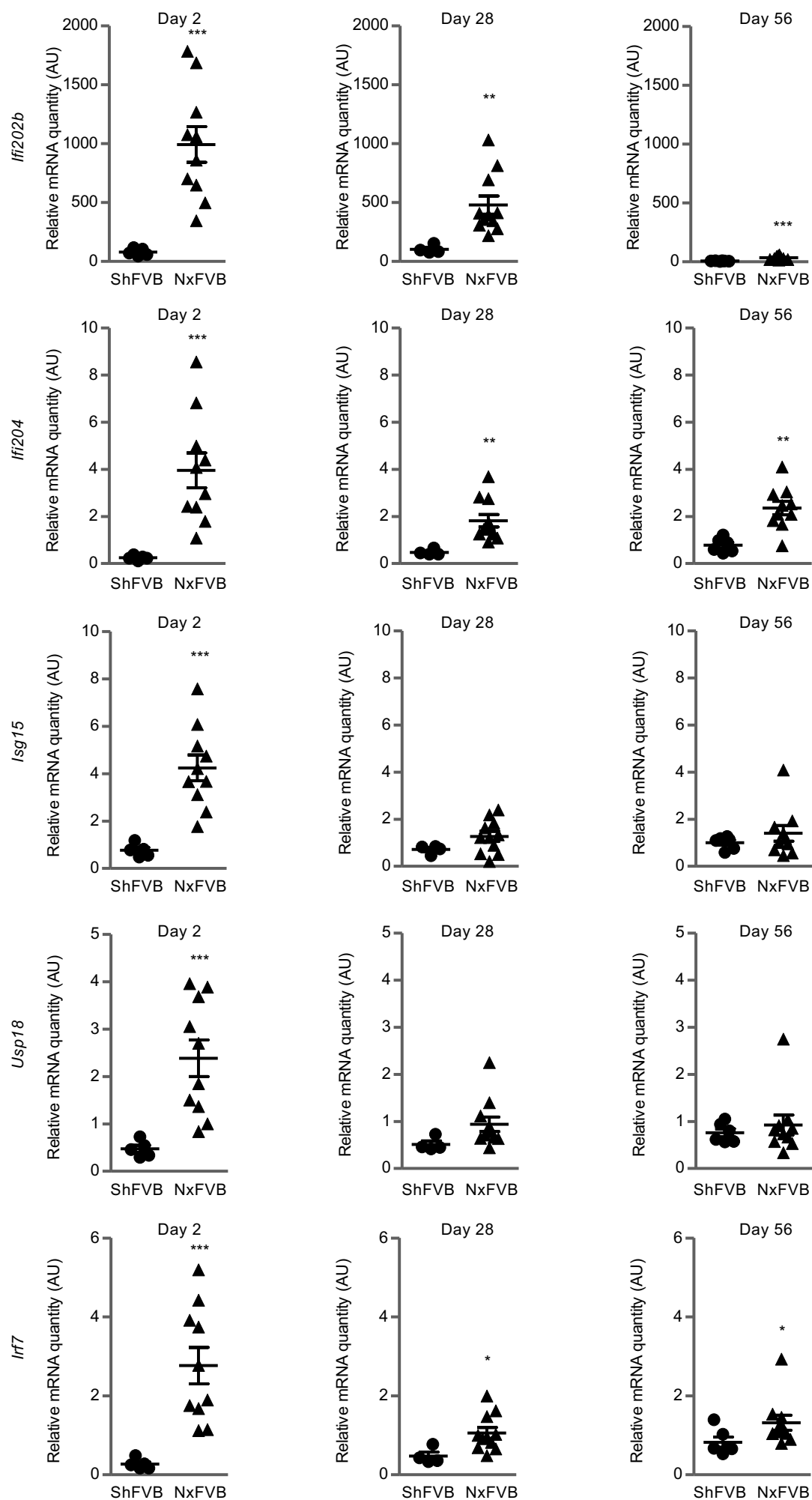
Supplemental Figure 4. Renal function. Serum creatinine, urine protein-to-creatinine ratio and urine albumin-to-creatinine ratio in FVB and B6 mice 56 days after sham-operation (Sh) or subtotal nephrectomy (Nx). $n = 6$ and $n = 9-11$ for Sh and Nx, respectively in each strain. Data are means $\pm$ SEM. ANOVA was followed by the Tukey–Kramer test. Nx versus Sh mice: *** $P < 0.001$; FVB versus B6 mice: # $P < 0.05$, ### $P < 0.001$.



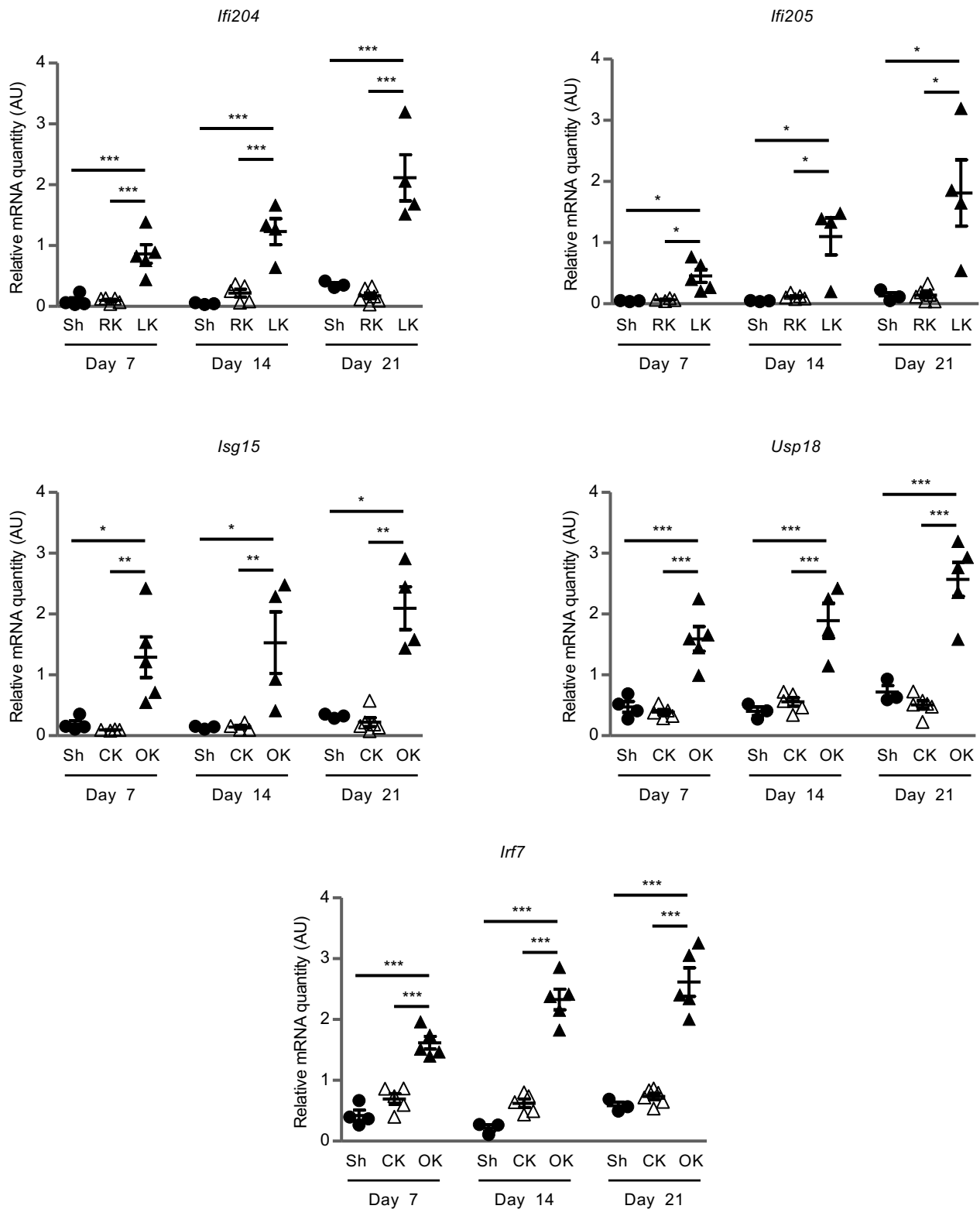
Supplemental Figure 5. Cell proliferation interests mainly tubular cells. Representative images of co-localization experiments using anti-PCNA (blue) and anti- α -SMA antibodies in B6 and FVB mice 56 days after sham-operation (Sh) or subtotal nephrectomy (Nx). Original magnification, X200; n = 6 both Sh and Nx in each strain.



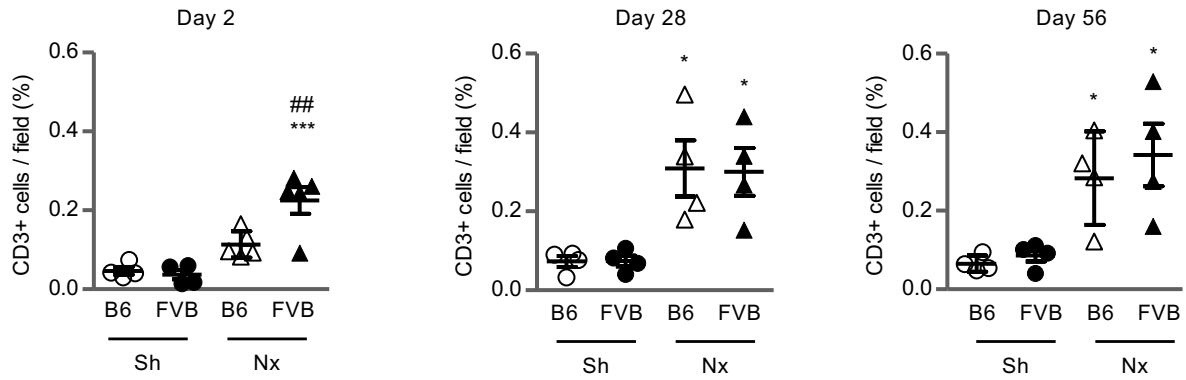
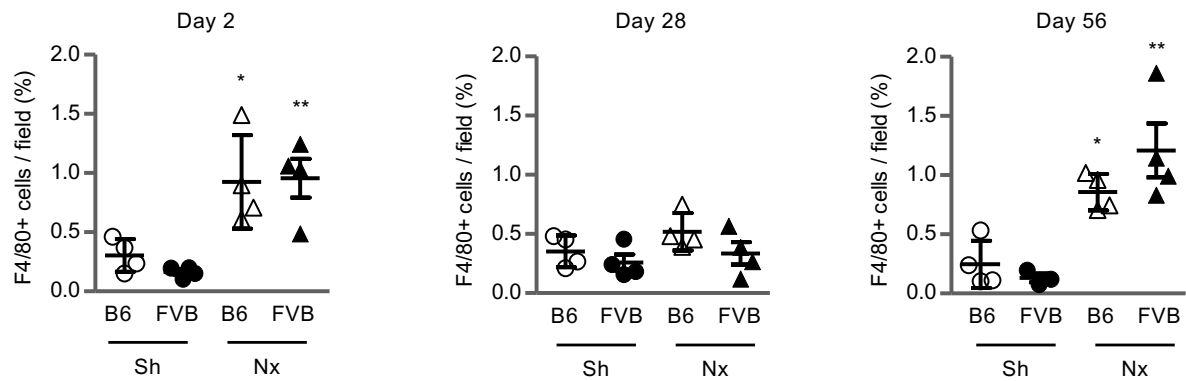
Supplemental Figure 6. Experimental protocol used for transcriptomic analysis. Four mice per group (sham-operation, Sh; or subtotal nephrectomy, Nx) of each strain (B6 and FVB) at each time point (2, 28, and 56 days after surgery, corresponding to the renal compensatory, quiescent, and deterioration phases, respectively) were used for whole-kidney transcriptomic analysis. Overall, microarray analysis was performed on 48 mice. A full statistical model was fitted to the expression data in order to consider: (1) the strain (FVB *versus* B6), (2) the surgery (Nx *versus* Sh), and (3) the time after surgery (2 *versus* 28 *versus* 56 days) effect. Unbiased clustering analysis was performed using co-inertia analysis. Gene-set enrichment analysis was then performed using a collection of gene signatures from PID, Pathway Commons and Reactome.



Supplemental Figure 7. Time-course analysis of type I IFN induced genes expression after nephron reduction. mRNA expression of *Ifi202b*, *Ifi204*, *Isg15*, *Usp18*, and *Irf7* in FVB mice 2, 28, and 56 days after sham-operation (Sh) or subtotal nephrectomy (Nx). n = 4-6 and n = 9-11 for Sh and Nx, respectively in each strain at each time point. Data are means ± SEM. Mann Withney test. Nx versus Sh mice: * P < 0.05, ** P < 0.01, *** P < 0.001.



Supplemental Figure 8. Unilateral ureteral obstruction results in early type I IFN response. mRNA expression of *Ifi204*, *Ifi205*, *Isg15*, *Usp18* and *Irf7* in B6 mice 7, 14, and 21 days after sham-operation (Sh) or unilateral ureteral obstruction (UUO) in non obstructed control kidney (CK) and obstructed kidney (OK). $n = 3-4$ and $n = 5-6$ for Sh and UUO, respectively at each time-point. Data are means $\pm$ SEM. ANOVA was followed by the Tukey–Kramer test. OK versus Sh or CK: * $P < 0.05$, ** $P < 0.01$, *** $P < 0.001$.

A**B**

Supplemental Figure 9. Time-course quantification of renal inflammatory cell infiltration. (A) Quantification of T-lymphocytes and (B) monocytes-macrophages in B6 and FVB mice 2, 28, and 56 days after sham-operation (Sh) or subtotal nephrectomy (Nx) by CD3 and F4/80 immunohistochemistry, respectively. $n = 4$ for both Sh and Nx, in each strain at each time point. Data are means $\pm$ SEM. ANOVA was followed by the Tukey–Kramer test. Nx versus Sh mice: * $P < 0.05$, ** $P < 0.01$, *** $P < 0.001$; FVB versus B6 mice: ## $P < 0.01$.

Supplemental Table 1: Primers used in the study.

Gene	Primer	Sequence (5' - - - - 3')
<i>Cdkn1a</i>	F	GGAACATCTCAGGGCCGAAA
	R	CTGACCCACAGCAGAAGAGG
<i>Ifi202b</i>	F	ATTCCAGCGTGTCTGAGGTG
	R	ACCACCACTTTTCATTGCTCCT
<i>Ifi204</i>	F	TAGAAGTGGTGGGGAGTGGA
	R	GCACCATCACTTGTTTGGGAC
<i>Ifi205</i>	F	TTGTGAACGTGTACCAACTCT
	R	TGCCTTGATCTTCTTCACGTC
<i>Isg15</i>	F	TCTGACTGTGAGAGCAAGCA
	R	ACCAGGAAATCGTTACCCCC
<i>Usp18</i>	F	AAGGACGCAAAGCCTCTGAA
	R	ATGGTCAAGGTTTGGGGCAG
<i>Irf7</i>	F	GTCACCACACTACACCATCTAC
	R	CCATGAGGAAGTGTTTCGATGT
<i>Cd3</i>	F	AAGCCTGTGACCCGAGGAA
	R	TGCGGATGGGCTCATAGTCT
<i>Mac1</i>	F	CTTCCAGGGCAGGAGTCGTAT
	R	CAATGGAGCTGCCCACAAT
<i>SiglecH</i>	F	CAGAACTCCACAGCCCATGT
	R	TGTGTTGCTGGTCTCTCCAC
<i>Tlr7</i>	F	GTTCTTGACCTTGGCACT
	R	CCGTGCATATTCATCGTA
<i>Kim1</i>	F	GAGAGTGACAGTGGTCTGTATTG
	R	CCTTGTAAGTTGTGGGTCTTCTT
<i>Lcn2</i>	F	GGACCAGGGCTGTCGCTACT
	R	GGTGGCCACTTGACATTGT
<i>Ripk3</i>	F	GCCTTCCTCTCAGTCCACAC
	R	ACGCACCAGTAGGCCATAAC
<i>Mkl1</i>	F	AGGATGCAGAGGAAGACGGA
	R	TGGGATCTCCTGTGTGGGTT
<i>Rpl13</i>	F	CTCATCCTGTTCCCCAGGAA
	R	GGGTGGCCAGCTTAAGTTCTT