Supplementary Figures

a

b

c

d

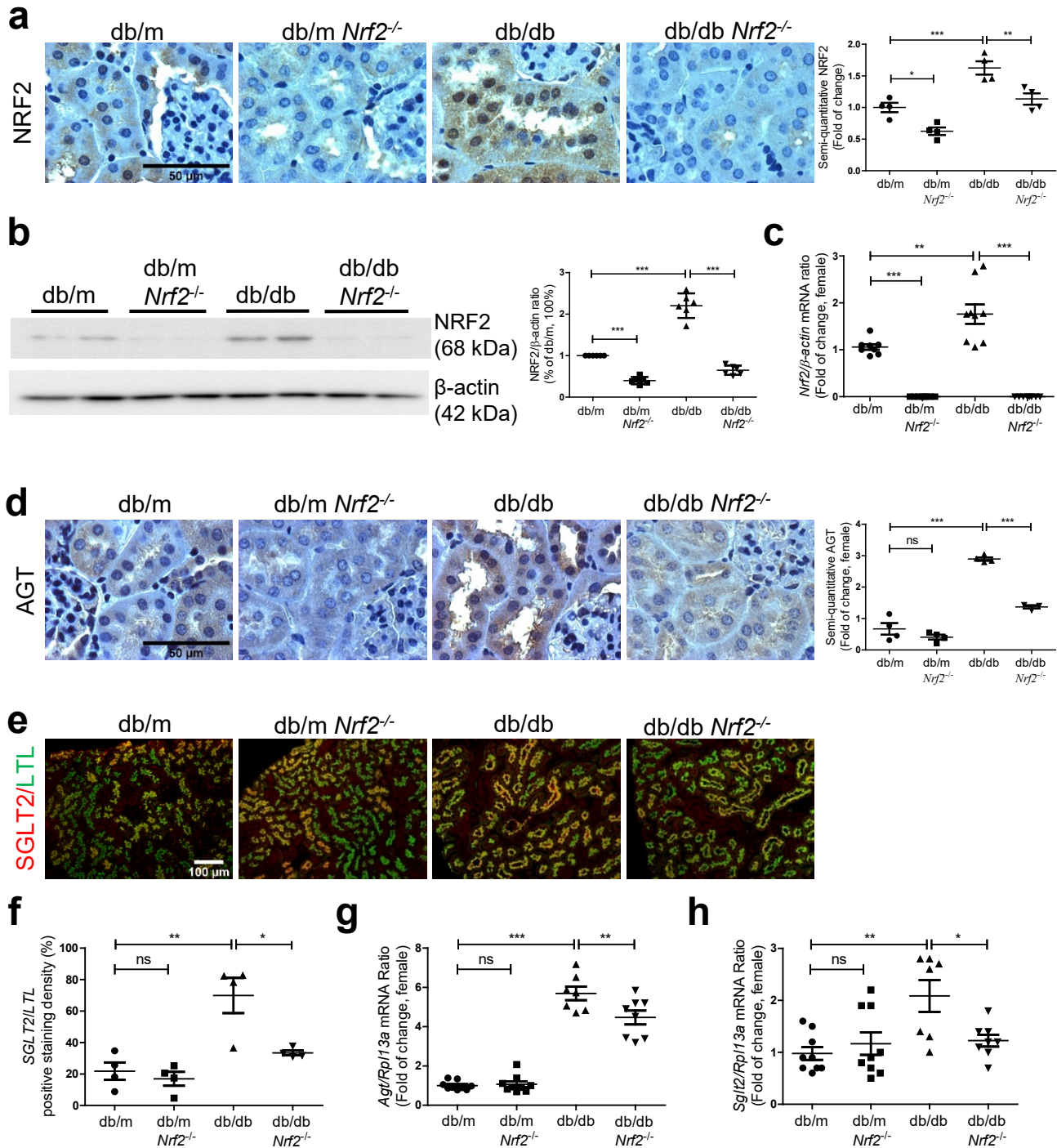**e**

f

g

h

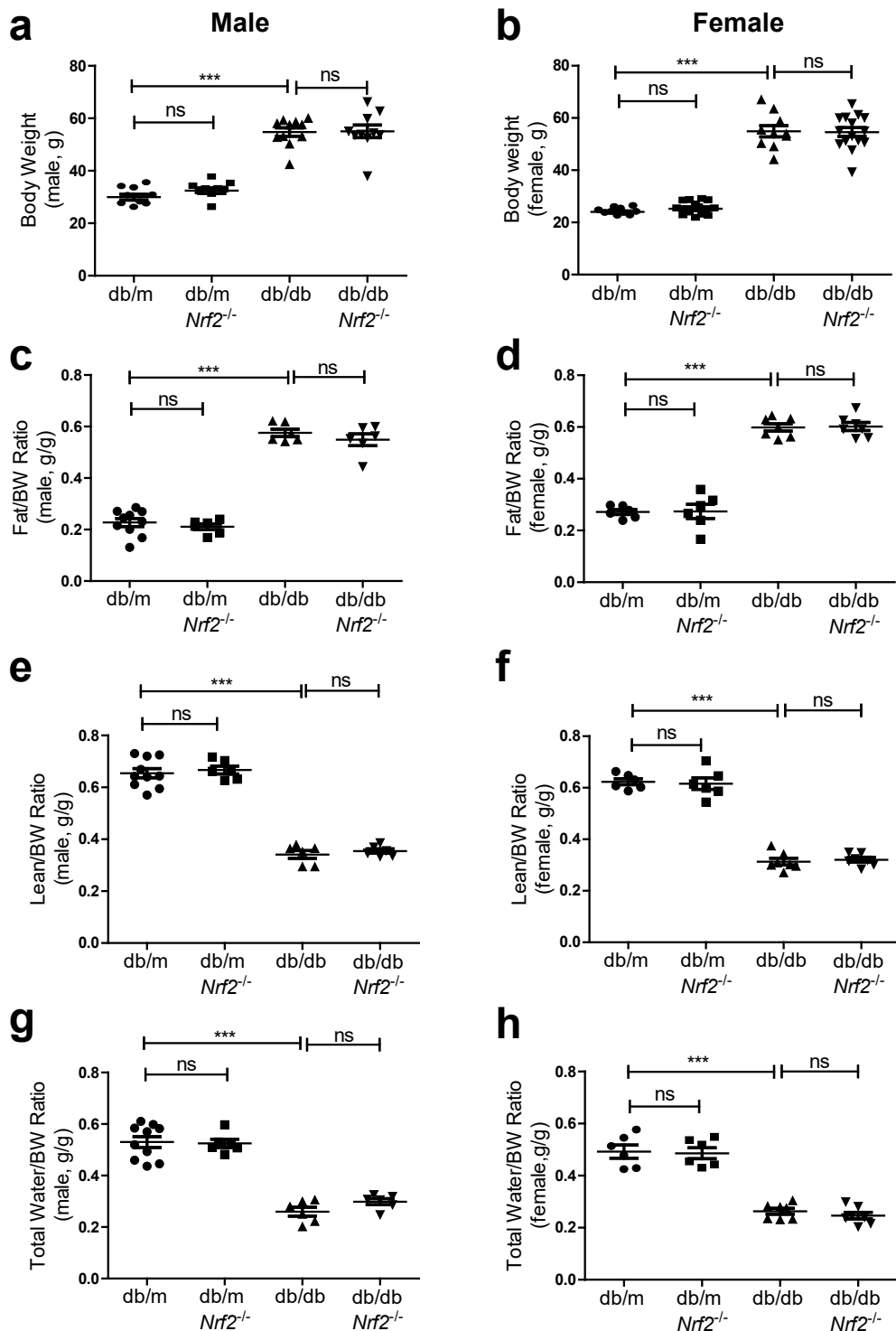**Figure S1** Nrf2, Keap1, Agt and Sglt2 expression in female mouse kidneys

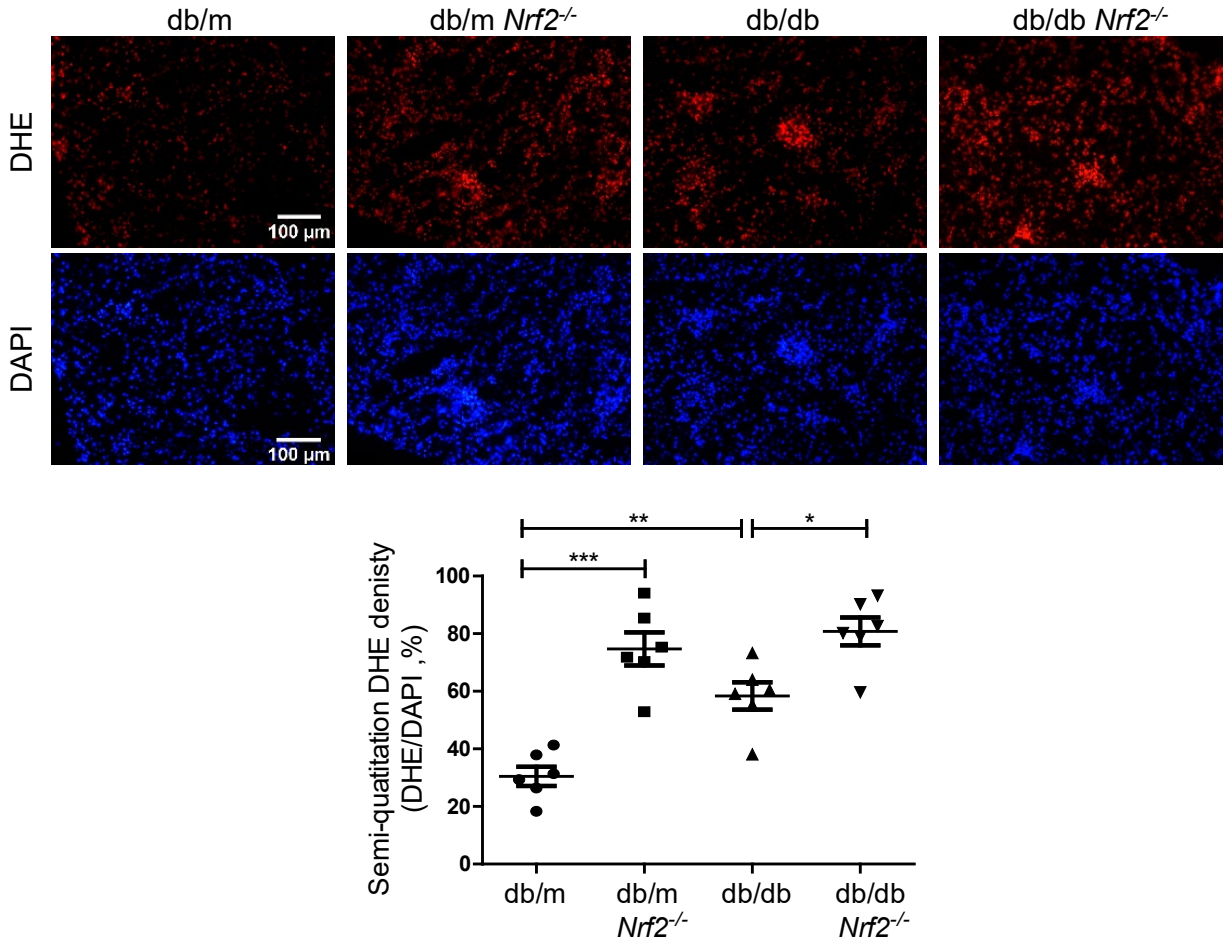**Figure S2** Physiological parameters in male and female mice at 16 weeks of age.

Figure S3 DHE and DAPI staining (x100) and semi-quantitation in kidney sections from male db/m, db/mNrf2 KO, db/db and db/dbNrf2 KO mouse kidneys at the age of 16weeks. Values are expressed as mean ± SEM, n=6 per group for staining. Statistics were done by one-way ANOVA, followed by Bonferroni post-hoc test.*p<0.05; **p<0.01; ***p<0.005 vs. db/m.
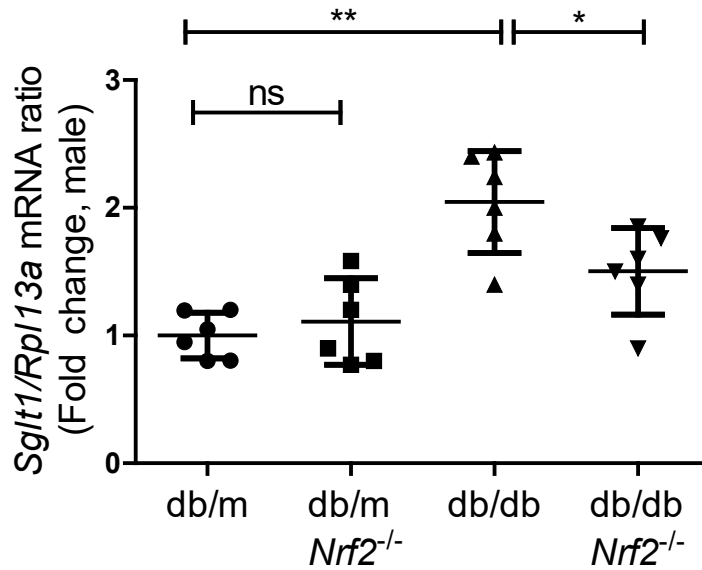
Figure S4. RT-qPCR analysis of Sglt1 mRNA levels in RPTs of male db/m, db/mNrf2 KO, db/db and db/dbNrf2 KO mice at age 16 weeks (n=6 per group). Statistics were done by one-way ANOVA, followed by Bonferroni post-hoc test. $*p<0.05$; $**p<0.01$; $***p<0.005$.

Supplemental Table S1
Primary antibodies

Antibody (Host)	WB/IHC (Diultion)	Supplier	Cat#
NRF2 (mouse monoclonal)	WB(1:500);	Santa-Cruz	sc-365949
NRF2 (rabbit polyclona)	IHC (1:400)	Abcam	ab36113
KEAP1 (rabbit polyclonal)	WB(1:2000);	Abcam	ab66620
	IHC (1:400)		
AGT (rabbit polyclonal)	WB(1:2000);	Generated in our lab (1)	
	IHC (1:200)		
HO-1	IHC（1:400）	ENZO	ADI-SPA-895-D
	WB（1:2000）		
NOX4	IHC（1:400）	Abcam	ab109225
CATALASE	IHC（1:100）	Sigma-Aldrich	SAB5700937
SGLT2	IF（1:300）	Abcam	Ab85626
	WB（1:1000）	Alomone	AGT-032
β-Actin (mouse Monoclonal)	WB (1:10000)	Sigma-Aldrich	A5441
CD36（for mouse kidney）	IHC（1:200）	R&D Systems	AF2519
CD36（for human kidney）	IHC（1:400）	Proteintech	18836-1-AP
	WB（1:1000）		
FABP4（for mouse kidney）	IF（1:400）	R&D Systems	AF1443
FABP4（for human kidney）	IF（1:400）	R&D Systems	AF3150
LTL	IHC（1:200）	Invitrogen	L32480

(1) Wang L, Lei C, Zhang et al. Synergistic effect of dexamethasone and isoproterenol on the expression of angiotensinogen in immortalized rat proximal tubular cells. Kidney International 53:287-295, 1998.

Supplemental Table S2
Primers

Gene (Species)	Sense and Anti-Sense Primers	Reference Sequence
Primers for genotyping		
Nrf2 (mouse genotyping)	Common-S: GCCTGAGAGCTGTAGGCCC	NM_010902.3
	WT-AS: GGAATGGAAAATAGCTCCTGCC	
	Mutant-AS: GACAGTATCGGCCTCAGGAA	
Primers for RT-qPCR		
Nrf2 (mouse)	S: CGCCGCCTCACCTCTGCTGCCAGTAG	NM_010902.3
	AS: AGCTCATAATCCTTCTGTCG	
NRF2 (human)	S:ACACGGTCCACAGCTCATC	NM_006164.5
	AS:TGTCAATCAAATCCATGTCCTG	
Keap1 (mouse)	S: CATCCACCCTAAGGTCATGGA	NM_016679.4
	AS: GACAGGTTGAAGAACTCCTCC	
Agt (mouse)	S: CCACGCTCTCTGGATTTATC	NM_031144.3
	AS: ACAGACACCGAGATGCTGTT	
AGT (human)	S:AACTGGTGCTGCAAGGATCT	NM_000029.3
	AS:TCTCTCTCATCCGCTTCAAG	
Sglt2 （mouse）	S: TTGGTGTTGGCTTGTGGTCTAT	NM_133254.4
	AS:ATGTTGCTGGCGAACAGAGA	
SGLT2 （human）	S:CTGTTTGCACCCGTGTACCT	NM_003041
	AS:CCTGTCACCGTGTAAATCATGG	
RPL13a (mouse)	S:GCCCCACAAGACCAAGAGAG	NM_009438.5
	AS:TAGGCTTCAGCCGAACAACC	
RPL13a (human)	S:GCCCTACGACAAGAAAAAGCG	NM_012423.3
	AS:TACTTCCAGCCAACCTCGTGA	
CD36 (mouse)	S:GGAGCCATCTTTGAGCCTTCA	NM_001159558.1
	AS:GAACCAAACTGAGGAATGGATCT	
CD36 (human)	S:CTTTGGCTTAATGAGACTGGGAC	NM_001001547.3
	AS:GCAACAAACATCACCACACCA	
Fabp4 (mouse)	S:AAGGTGAAGAGCATCATAACCCT	NM_024406
	AS:TCACGCCTTTCATAACACATTCC	
HO-1(mouse)	S:GATAGAGCGCAACAAGCAGAA	NM_010442
	AS:CAGTGAGGCCCATACCAGAAG	
HO-1(human)	S:AAGACTGCGTTCCTGCTCAAC	NM_002133
	AS:AAAGCCCTACAGCAACTGTCG	
Catalase(mouse)	S:TGGCACACTTTGACAGAGAGC	NM_009804
	AS:CCTTTGCCTTGGAGTATCTGG	
NOX4(mouse)	S:GAAGGGGTAAACACCTCTGC	NM_015760.5
	AS:ATGCTCTGCTTAAACACAATCCT	
SGLT1(mouse)	S:CACCGAGGGCTGACTCATTC	NM_019810
	AS:TGATCCGTACACCAGTACCAC	