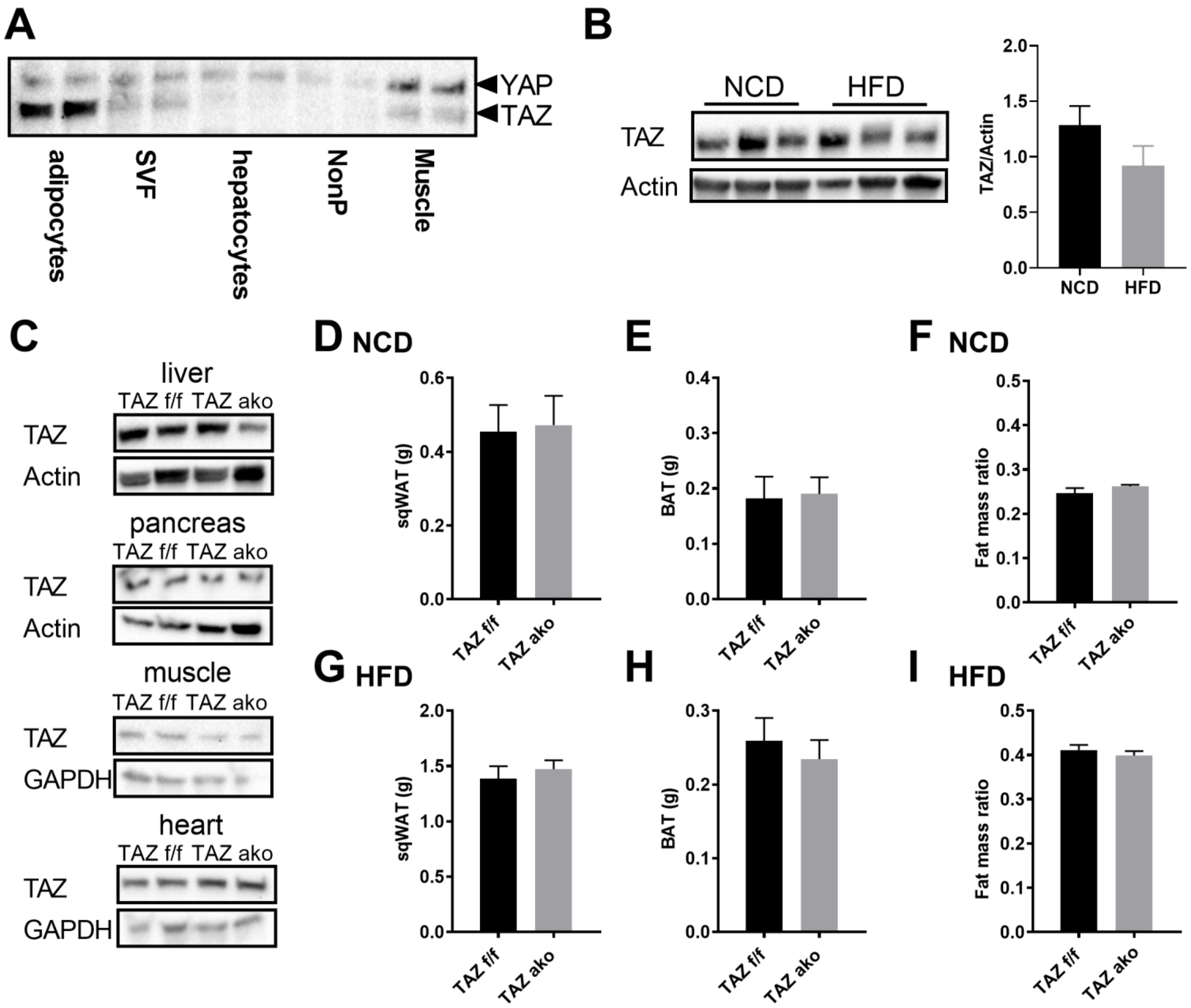

Figure S1. Related to Figure 1
(a) Immunoblot with antibody against YAP/TAZ to lysate from the indicated cells/tissues. (b)TAZ expression in NCD and HFD (12 weeks) mice (Values are expressed as mean ± SEM, n=8 mice/group).
(d-f) Weight of sqWAT, BAT and fat mass in NCD mice. (g-i) Weight of sqWAT, BAT and fat mass in 12 weeks fed 60% high fat diet mice. Values are expressed as mean ± SEM, n=6 mice/group.

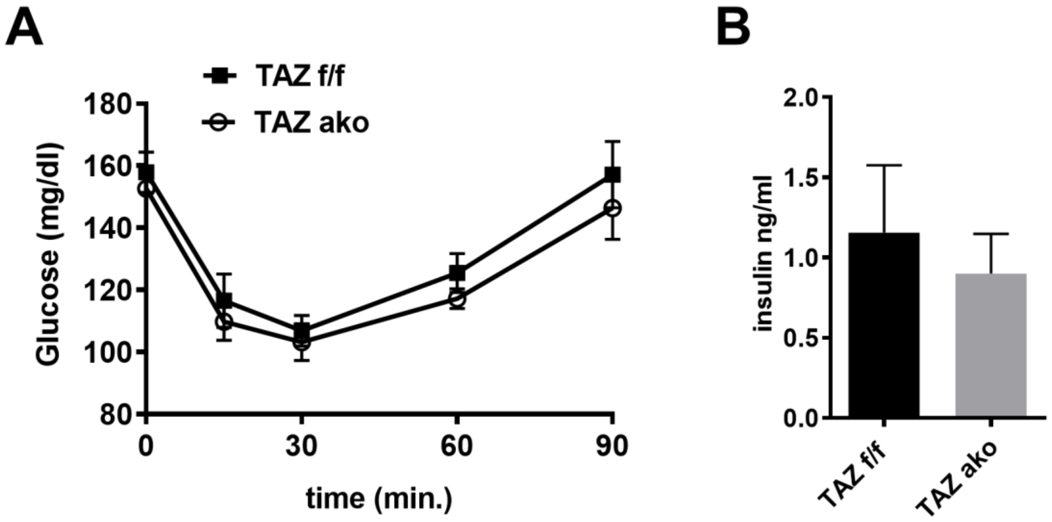

Figure S2. Related to Figure 2
Insulin sensitivity and fasting insulin levels of f/f and AKO mice on HFD. (a) Insulin tolerance test. (b) Fasting insulin levels. Values are expressed as mean ± SEM. n=8-11 mice/group.

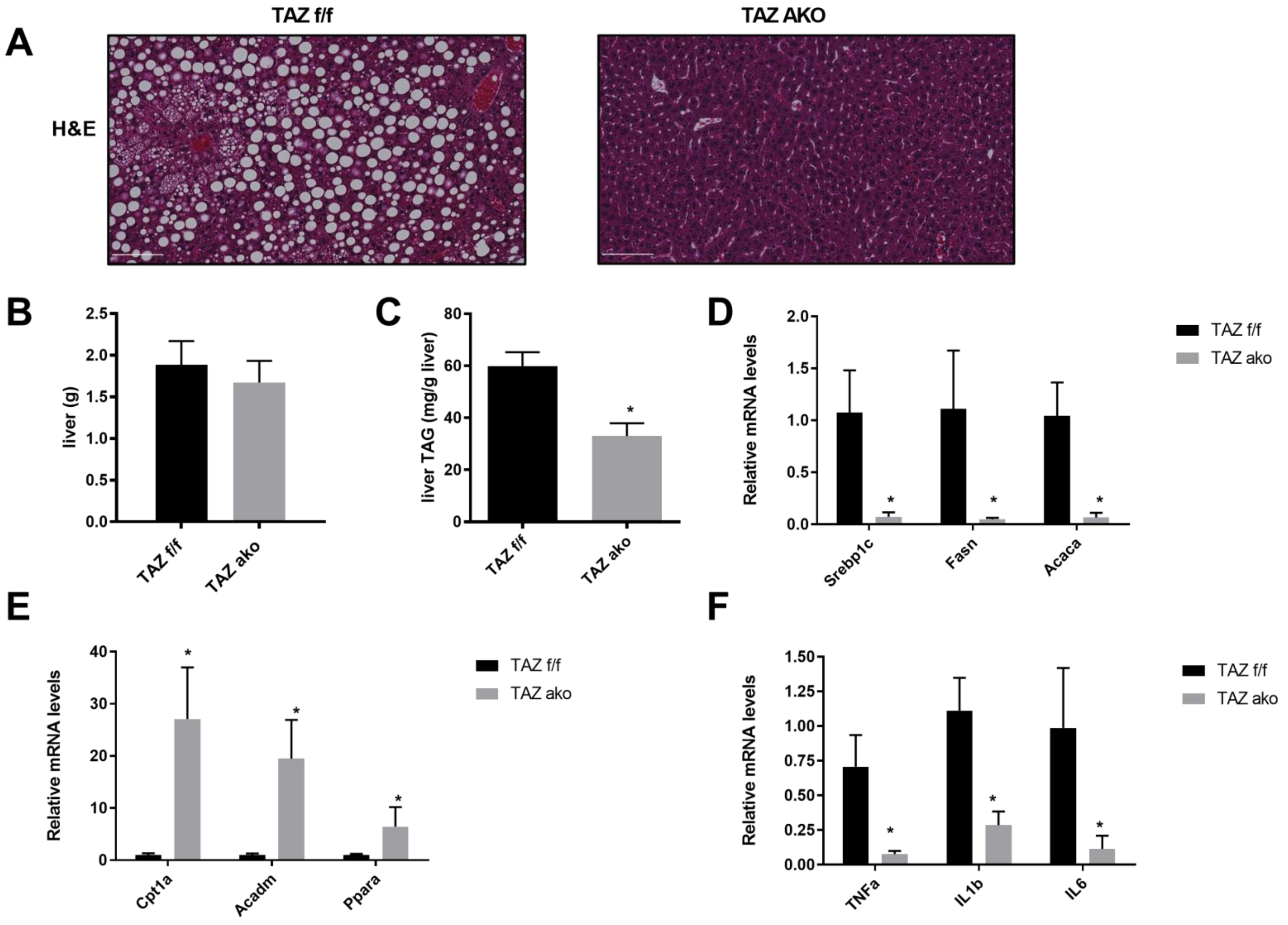

Figure S3. Related to Figure 2

AKO mice are characterized by less steatosis in the liver. (a) H&E staining of liver samples from TAZ AKO and TAZ f/f mice. (b) Liver weight in grams. (c) Liver TAG content. (d) mRNA levels of de novo lipogenesis genes in liver. (e) mRNA levels of ß-oxidation genes in liver. (f) mRNA levels of inflammatory genes in liver. Values are expressed as mean ± SEM, n=5-6 mice/group in (a-f) * $p < 0.05$, for TAZ AKO vs f/f.

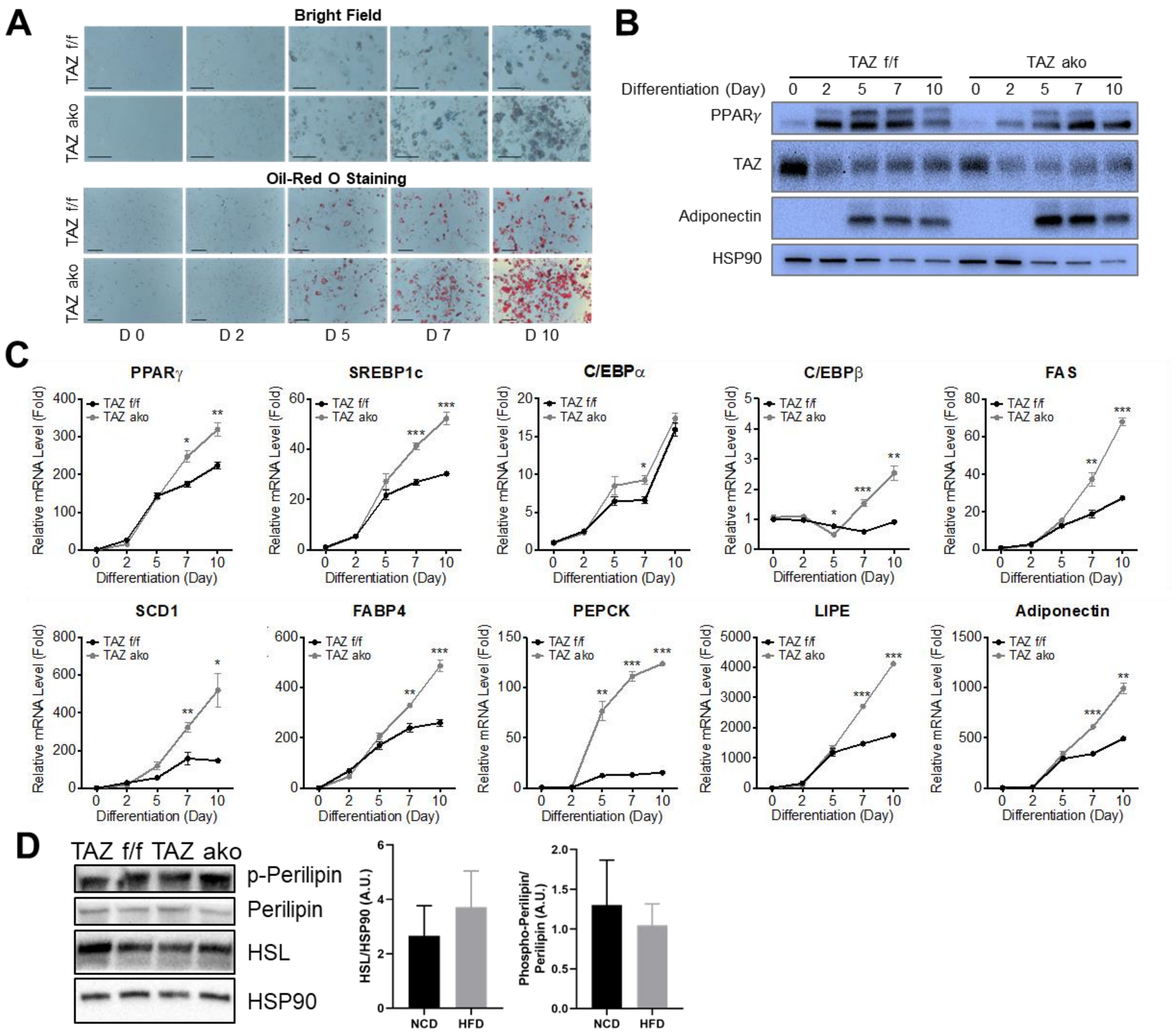

Figure S4. Related to Figure 3 Adipocyte differentiation of primary pre-adipocytes. Isolated primary preadipocytes from subcutaneous fat from TAZ f/f and TAZ ako mice were differentiated into adipocytes. (a) Microscopic pictures were taken with or without Oil-Red O staining at the indicated time points. Scale bar, 200 mm. (b) The protein expression of PPARγ, TAZ, and adiponectin were measured by Western blot analysis. (c) The mRNA levels of both adipogenic and lipogenic genes were measured by quantitative real-time PCR (n=4).(d) The protein expression of phospho-Perilipin and HSL in HFD mice was measured by Western blot analysis (n=3-5). *p<0.05, **p<0.01, ***p<0.001 vs control. Data are presented as mean +/- SEM.

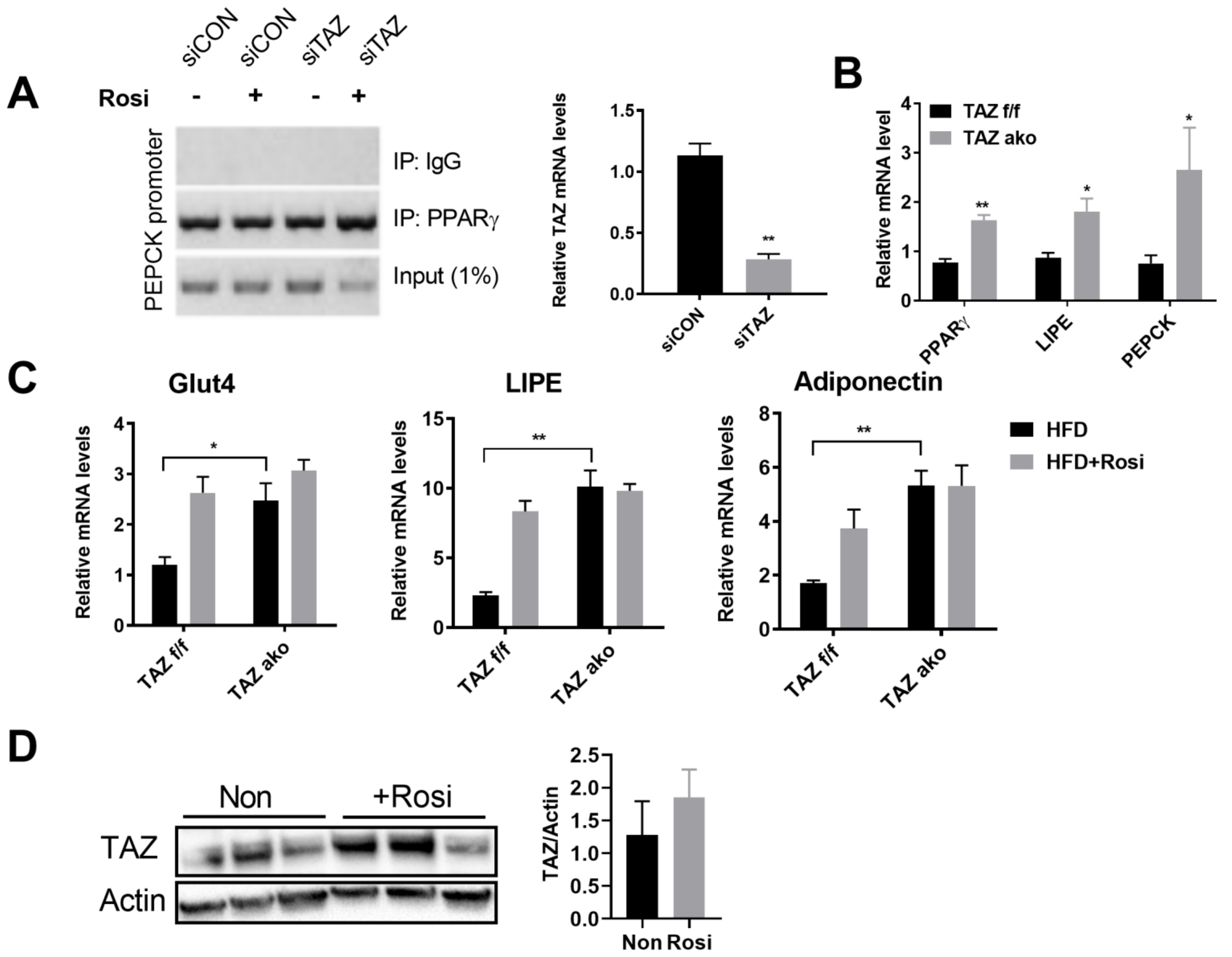

Figure S5. **Related to Figure 5.**

The effects of TAZ AKO on PPAR activity. (a) Chromatin immunoprecipitation (ChIP) of control IgG or PPARγ from 3T3-L1 adipocytes in the presence or absence of Rosiglitazone and transfected with TAZ and non-targeting siRNAs. Left panel, PCR products of PPRE element in the PEPCK promoter. Right panel, the silencing efficiency of TAZ gene (b) Adipogenic gene and PPARγ target genes expression levels in scWAT from HFD mice. (c) mRNA levels of upregulated genes responsive to PPARγ agonist rosiglitazone in eWAT. (d) TAZ expression in HFD (12 weeks) mice with and without rosi treatment (n=4 mice/group).Values are expressed as mean ± SEM. *p<0.05, **p< 0.01.

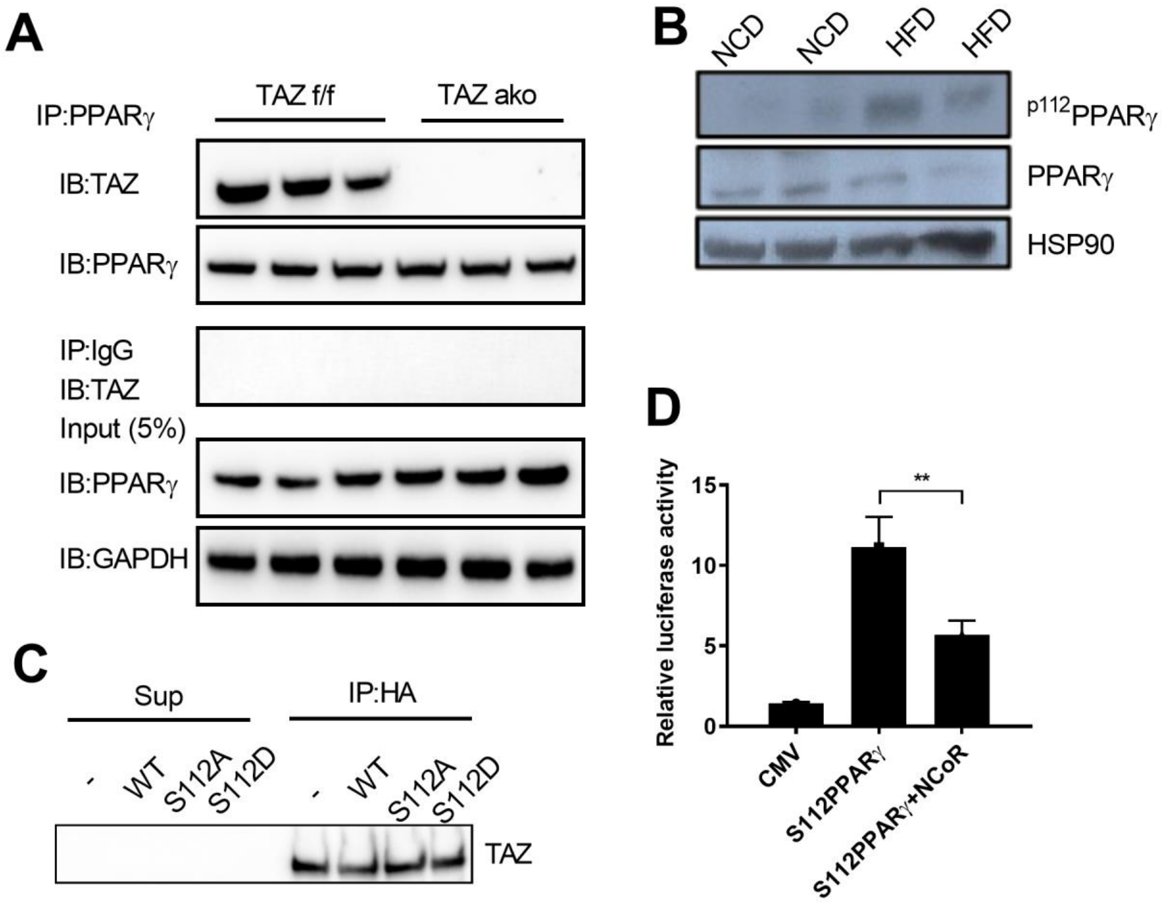

Figure S6. **Related to figure 6.**

The effects of TAZ AKO on PPAR activity. (a) Co-IP of PPARγ followed by TAZ immunoblotting (b) Phospho-PPARγ Ser112 (p-PPARγ) and PPARγ levels in eWAT from normal chow and high-fat diet wildtype mice. (c) IP efficiency of HA-TAZ when co-transfected with or without PPARγ WT or mutants in U2-OS cells. (d) Transcriptional repression effect of NCoR on S112A mutant PPARγ-driven gene transcription in dual luciferase reporter assay. Values are expressed as mean ± SEM. *p<0.05, **p< 0.01.

Table S1. Related to Figures 1, 4, 5, S3, S4 and S5.

List of primers used for real time PCR analysis in this study.

	Forward primer (5'-3')	**Reverse primer (5'-3')**
36B4	TGGCCA ATAAGGTGCCAGCTGCTG	CTTGTCTCCAGTCTTTATCAGCTGCAC
ACC	CTG ACGTATACTGAACTGGTGTTGGATG	TTTCCAGGCTACCATGCCAATCTC
Adiponectin	TGTTCCTCTTAATCCTGCCCA	CCAACCTGCACAAGTTCCCTT
CD11c	ACACAGTGTGCTCCAGTATGA	GCCCAGGGATATGTTCACAGC
C/EBPa	GCGGGCAAAGCCAAGAA	GCGTTCCCGCCGTACC
C/EBPb	CAACCTGGAGACGCAGCACAAG	GCTTGAACAAGTTCGGCAGGGT
F4/80	CTTTGGCTATGGGCTTCCAGTC	GCAAGGAGGACAGAGTTTATCGTG
FABP4	GGATTTGGTCACCATCCGGT	CCAGCTTGTCACCATCTCGT
FAS	CCAGACAGAGAAGAGCCA TGGAGG	CCAATGAGGTTGGCCCAGAACTCC
fasn	GGAGGTGGTGATAGCCGGTAT	TGGGTAATCCATAGAGCCCAG
GAPDH	AA TGTGTCCGTCGTGGA TCT	CATCGAAGGTGGAAGAGTGG
Glut4	CAATGGTTGGGAAGGAAAAGGGCTA	GTAGGCGCCAATGAGGAACCGTC
IL-1β	AAATACCTGTGGCCTTGGGC	CTTGGGA TCCACACTCTCCAG
IL-6	CCAGAGATACAAAGAAATGATGG	ACTCCAGAAGACCAGAGGAAAT
IL-10	TGAA TTCCCTGGGTGAGAAG	TCACTCTTCACCTGCTCCACT
iNOS	GAGGCCCAGGAGGAGAGAGATCCG	TCCA TGCAGACAACCTTGGTGTTG
LIPE	GGGAGCTCCAGTCGGAAGA	AACAGTTGGCCTAGGGTTGG
LPL	GCCCAGCAACATTATCCAGT	GGTCAGACTTCCTGCTACGC
MCP-1	AGGTCCCTGTCA TGCTTCTG	GCTGCTGGTGATCCTCTTGT
PEPCK1	A TGAAGTTTGA TGCCCAAGGCAAC	GGATTTGTCTTCACTGAGGTGCC
Plin1	TCCACCCAGTTCACAGCTTGC	GATGCTGTTCCTGGCGCTTC
PPARα	ATGAAGAGGGCTGAGCGTAG	AAACGCAACGTAGAGTGCTGT
PPARγ	GCATGGTGCCTTCGCTGA	TGGCATCTCTGTGTCAACCATG
RGS2	CCAAGGTCGAGGAGAAGCGGGAG	GCGCTTCCTCAGGAGAAGGCTG
SCD1	TTCTTGCGATACACTCTGGTGC	CGGGATTGAATGTTCTTGTCGT
SREBP1c	GCCGTGGTGAGAAGCGCACAGCCC	CAAGACAGCAGATTTATTCAGCTTTGC
TAZ	ATGTCCGCTCGCACTCGTCG	AGTGCGAGCGGACATGTTGG
TNFα	CCAGACCCTCACACTCAGATC	CACTTGGTGGTTTGCTACGAC
Ym1	GGGCATACCTTTATCCTGAG	CCACTGAAGTCA TCCA TGTC