

### **SUPPLEMENTAL DATA**

Supplemental table 1. FXR-deficiency attenuates the influence of RSG on adipocyte size distribution. Adipocyte size was determined in 8 mice per group and a total of 200 adipocytes per animal. Statistical significance was analyzed using the univariate ANOVA and Bonferroni test. Significant differences ( $P < 0.01$ ) between conditions are indicated by different letters (a, b, c).

Supplemental table 2. List of specific primers used in this study. Primers were designed using the Primer3 software.

Genotype	Treatment	Mean of adipocyte diameters ( $\mu\text{m}$ )	S.D	Percentage change of adipocyte size (RSG/Control)
FXR <sup>+/+</sup>	Control	90 <sup>a</sup>	26	12%
FXR <sup>+/+</sup>	RSG	80 <sup>b</sup>	23	
FXR <sup>-/-</sup>	Control	78 <sup>b</sup>	21	6%
FXR <sup>-/-</sup>	RSG	73 <sup>c</sup>	20	

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Gene	sens	Specific primers
Cyclophilin	Forward	GCA TAC GGG TCC TGG CAT CTT GTC C
	Reverse	ATG GTG ATC TTC TTG CTG GTC TTG C
aP2	Forward	GAA TTC GAT GAA ATC ACC GCA
	Reverse	CTC TTT ATT GTG GTC GAC TTT CCA
CEBP $\alpha$	Forward	CCA AGA AGT CGG TGG ACA AGA
	Reverse	CGG TCA TTG TCA CTG GTC AAC T
CEBP $\beta$	Forward	CCA AGG CCA AGG CCA AGA AG
	Reverse	AAG TTC CGC AGG GTG CTG AG
PPAR $\gamma$	Forward	TGC TGT TAT GGG TGA AAC TCT GGG
	Reverse	GGC TTG ATG TCA AAG GAA TGC G
CD36	Forward	GGA TCT GAA ATC GAC CTT AAA G
	Reverse	TAG CTG GCT TGA CCA ATA TGT T
Adiponectin	Forward	TCT CCT GTT CCT CTT AAT CCT GCC
	Reverse	CAT CTC CTT TCT CTC CCT TCT CTC C
LPL	Forward	TGT TTC TCC TGC CTG ATG TCT TC
	Reverse	GGC TAA CCC AGG GTG AGG AA
Perilipin	Forward	AGA GTT CTG CAG CTG CCT GTG
	Reverse	CAG AGG TGC TTG CAA TGG GCA
ADRP	Forward	CAG CCA ACG TCC GAG ATT G
	Reverse	GAC ATC CTT CGC CCC AGT
S3-12	Forward	GCT GCT CCA ACC TTC TGA AC
	Reverse	TCC CTT GAC AAG ACC TTT GG
FSP27	Forward	CTG GAG GAA GAT GGC ACA AT
	Reverse	GGG CCA CAT CGA TCT TCT TA
SFRP1	Forward	CGA GTT TGC ACT GAG GAT GA
	Reverse	CGT TCT TCA GGA ACA GCA CA
SFRP5	Forward	TCT TCC TCT GCT CGC TCT TC
	Reverse	GGG CAC AGA TCT TGG TCA CA
$\beta$ -catenin	Forward	TCT GAG CCC TAG TCA TTG CAT
	Reverse	GGA TTC TGG AAT CCA TTC TGG
LRP5	Forward	CAACCTGGACGGCTCCTT
	Reverse	CTCTGCTCCCCTGTCCACT
Axin2	Forward	CTC CCC ACC TTG AAT GAA GA
	Reverse	ACT GGG TCG CTT CTC TTG AA
Cyclin D1	Forward	ATG CTG GAG GTC TGT GAG GA
	Reverse	AGT TCC ATT TGC AGC AGC TC
c-Myc	Forward	AGT CGG GCT CAT CTC CAT C
	Reverse	CTT GTC GTT TTC CTC CGT GT