

Fig. S1. The protein expression of ADAR1 decreased in BAT of high-fat diet and DB/DB mice.(A, B) Changes of ADAR1 protein levels in epididymis and BAT of mice on high-fat diet (C, D) Protein levels of ADAR1 in the epididymis and BAT of WT and DB/DB mice. (E) qPCR analysis of the expression level of ADAR1 in different tissues.

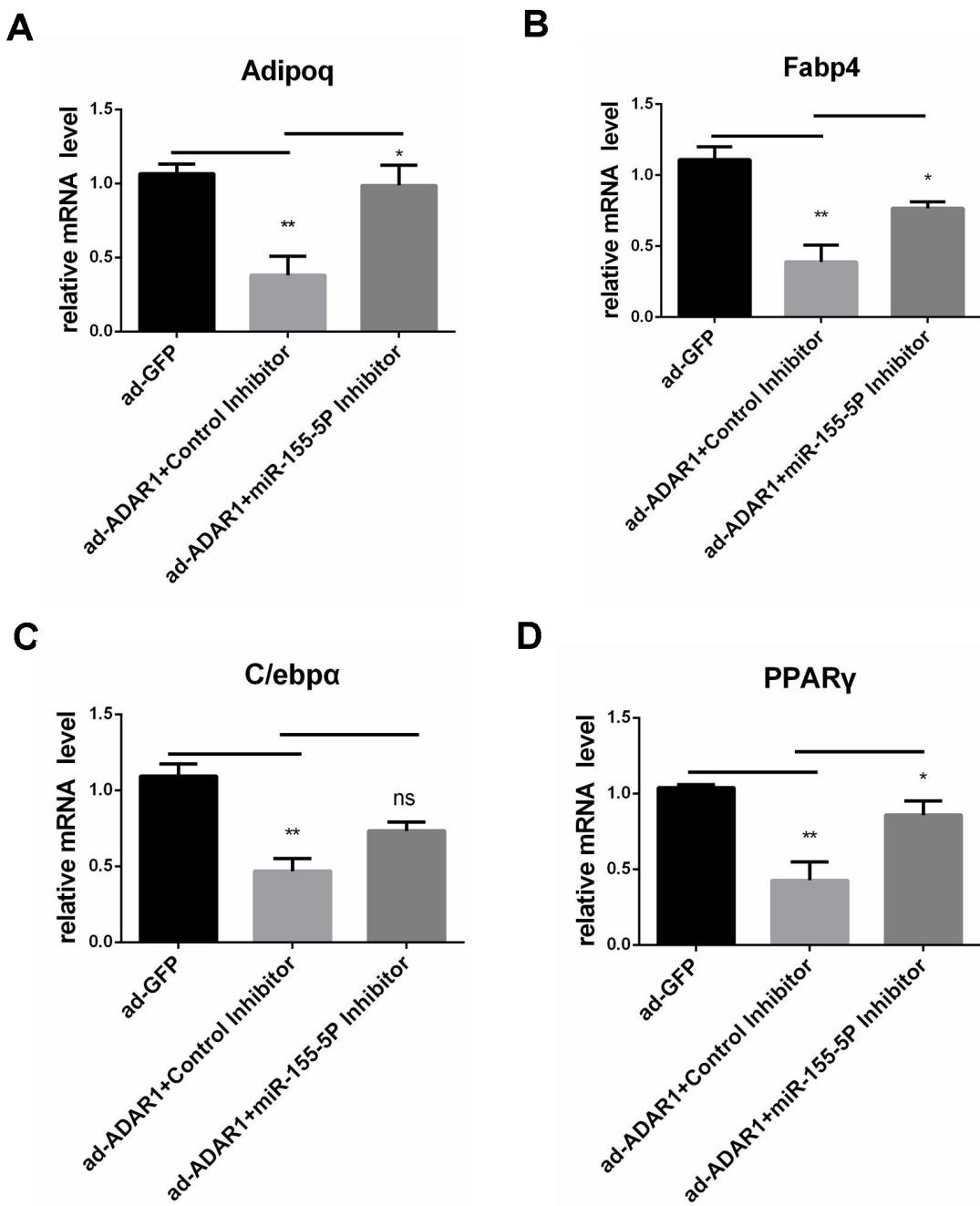


Fig. S2. The inhibitory effect of overexpression of ADAR1 on adipogenic genes can be partly reversed by miR-155-5P inhibitor. (A-D)The four adipogenic marker genes (Adipoq, C/EBP α , Fabp4 and PPAR γ) expression level in the control and overexpressed ADAR1 group with or without miR-155-5P inhibitor.

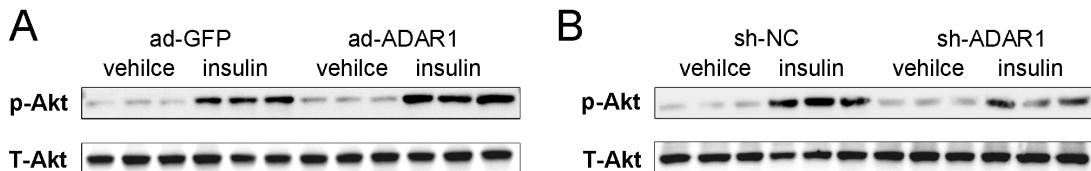


Fig. S3. The involvement of ADAR1 in insulin sensitivity is adipocyte autonomous. (A,B) Western blot analysis of total Akt and phosphorylated Akt levels in MEF cells with or without insulin stimulation (100 nM, 30 minutes) in the control group and the ADAR1 overexpression or knockdown group.

Table S1. The primer sequences of real-time quantitative PCR used in this experiment

Gene	Forward 5'--3'	Reverse 5'--3'
18s	TTGACGGAAAGGGCACCAACCAG	GCACCACCCACCCACGGAATCG
ADAR1	TTGTCAACCACCCCAAGGTCG	TGGACACCCGAGACAACCTCT
Adipoq	TGACGACACCAAAAGGGCTC	TCATCTCGGCATGACTGGG
Cebpa	GAACAGCAACCGAGTACCGGGTA	GCCATGGCCTTGACCAAGGAG
Fabp4	AAGTGGGAGTGGGCTTGC	CCGGATGGTGACCAAATCC
Ppar γ	TATTCTCAGTGGAGACCGCC	GGGTGGGACTTCCTGCTAA
Cebpb	CAAGCTGAGCGACGAGTACA	CAGCTGCTCCACCTCTTCT

Table S2. The sequences of miRNA inhibitor and siRNA.

Name	Sequences
miR-155-5p inhibitor	5'-ACCCCUAUCAACAUUAGCAUUAA-3'
Control inhibitor	5'-CAGUACUUUUGUGUAGUACAAA-3'
si-m-Cebpb sense	5'-CCAAGGCCAACAGACGGU-3'
si-m-Cebpb antisense	5'-ACCGUCUUCUUGGCCUUGG-3'
si-m-Dicer sense	5'-GCAUUGUGAUUCGUGCAUU-3'
si-m-Dicer antisense	5'-AAUGCACGAAUCACAAUGC-3'