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## Supplementary Information

### **miR-140-5p regulates adipocyte differentiation by targeting transforming growth factor- $\beta$ signaling**

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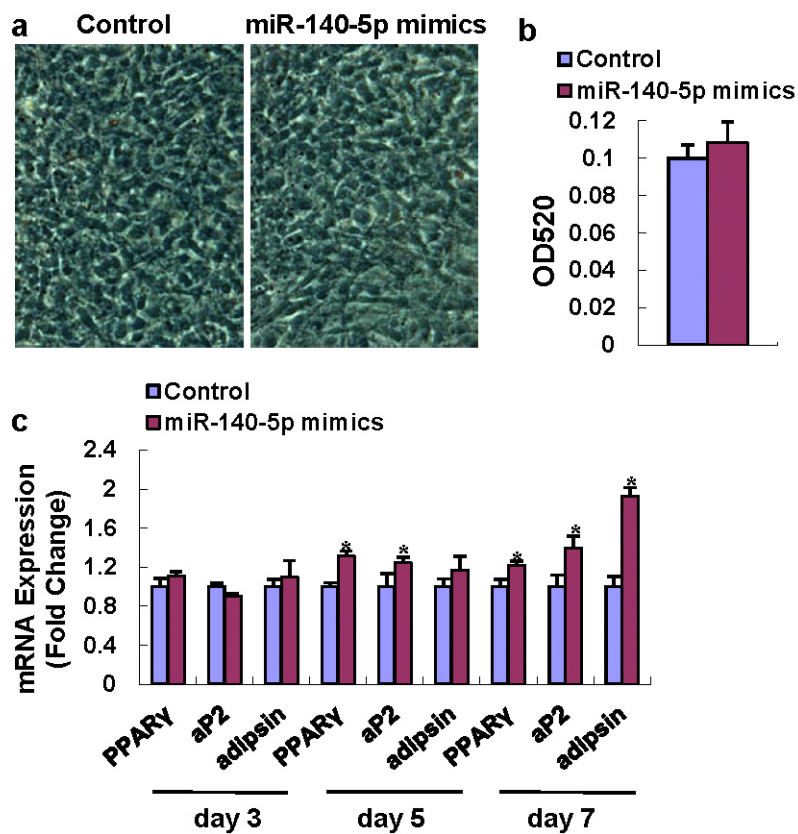
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**Figure S1. miR-140-5p mimics did not induce adipocyte formation in absence of adipogenic treatment.** miR-140-5p mimics transfection did not obviously induce adipocyte formation from ST2 in absence of AIM. Oil-Red O extracted with isopropanol was measured at OD520 (a, b). The mRNA levels of PPAR $\gamma$ , aP2 and adipsin were slightly induced at some indicated time points after transfection (c). \*Significant vs. negative control,  $p < 0.05$ .

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**Table 1 The primers used for RT-PCR quantifications of adipogenic and osteogenic genes**

Genes	Forward primer sequences	Reverse primer sequences
PPAR $\gamma$	5'-CTTGACAGGAAAGACAACGG-3'	5'-GCTTCTACGGATCGAAACTG-3'
C/EBP $\alpha$	5'-CTGATTCTTGCCAAACTGAG-3'	5'-GAGGAAGCTAAGACCCACTAC-3'
aP2	5'-AAATCACCGCAGACGACAGG-3'	5'-GGCTCATGCCCTTTCATAAAC-3'
adipsin	5'-TGATGTGTGCAGAGAGCAAC-3'	5'-CGTAACCACACCTTCGACTG-3'
Runx2	5'-TCCTGTAGATCCGAGCACCA-3'	5'-CTGCTGCTGTTGTTGCTGTT-3'
Alp	5'-CCAGAAAGACACCTTGACTGTGG-3'	5'-TCTTGTCCGTGTCGCTCACCAT-3'
Opn	5'-GCTTGGCTTATGGACTGAGGTC-3'	5'-CCTTAGACTCACCGCTCTTCATG-3'
Col1a1	5'-CCTCAGGGTATTGCTGGACAAC-3'	5'-CAGAAGGACCTTGTTTGCCAGG-3'
$\beta$ -actin	5'-AAGACCTCTATGCCAACACAG-3'	5'-GGAGGAGCAATGATCTTGATC-3'

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**Table 2 The primers used for 3'-UTR and promoter amplifications**

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Genes	Forward primer sequences	Reverse primer sequences
Tgfbr1	5'-AGAATTCTTGCAGCAGTGGAATATGG-3'	5'-AGATATCTTCCTTCGGCAATAGACAAG-3'
Wnt11	5'-AGAATTCGCTTCAAAGGAAACTGATAG-3'	5'-AGATATCACAGATCACATACAGGGAAAC-3'
Ostm1(conserved)	5'-AGAGCTCTTAGTCACTGGGAGCCCACT-3'	5'-AAAGCTTCTGGCATAAGATGAATCCATC-3'
Ostm1(poorly conserved)	5'-AGAGCTCAGGAAGGCAGGAGTGTTTGG-3'	5'-GAACGCGTGCCTCAGGATTCAGAAC-3'
miR-140-5p promoter	5'-AGGTACCAGAACAAGGCTAAGCAAAGG-3'	5'-CAAGCTTATGAAATCATTCCCACAAGC-3'

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