

## Figure S legends

**Figure S1.** Expression of *miR-155*, *miR-130a* and *miR-375* during the early stage of adipogenesis in 3T3-L1 cells un-treated or treated with CAde. 3T3-L1 pre-adipocytes were cultured for 0.25, 0.5, 1, 2 and 4 h with AS (Ctrl) or AS + CAde (100 µg/ml). The levels of *miR-155*, *miR-130a* and *miR-375* were evaluated by quantitative real-time PCR. *miR-155* (a), *miR-130a* (b) and *miR-375*(c) expression in CAde-treated cells at 0.25, 0.5, 1, 2 and 4 h post adipogenic induction relative to their levels in un-treated control cells at the same time points. Values are means ± SEM of three independent experiments. Control values at 0.25, 0.5, 1, 2 and 4 h post adipogenic induction were set as 1.00. Statistical significances among groups were tested by one-way ANOVA followed by Bonferroni correction post hoc test. \* $p < 0.05$ , and \*\* $p < 0.01$  vs control 3T3-L1 cells.

**Figure S2.** Expression of the *miR-155* target genes, *C/EBPβ* and *Creb*, during the early stage of adipogenesis in 3T3-L1 cells un-treated or treated with CAde. 3T3-L1 pre-adipocytes were cultured for 0.25, 0.5, 1, 2 and 4 h with AS (Ctrl) or AS + CAde (100 µg/ml). The *C/EBPβ* and *Creb* levels were evaluated by quantitative real-time PCR. The levels of *C/EBPβ* and *Creb* were evaluated by quantitative real-time PCR. *C/EBPβ* (a) and *Creb* (b) expression in CAde-treated cells at 0.25, 0.5, 1, 2 and 4 h post adipogenic induction relative to their levels in un-treated control cells at the same time points. Values are means ± SEM of three independent experiments. Control values at 0.25, 0.5, 1, 2 and 4 h post adipogenic induction were set as 1.00. Statistical significances among groups were tested by one-way ANOVA followed by Bonferroni. \* $p < 0.05$ , and \*\* $p < 0.01$  vs control 3T3-L1 cells.

**Figure S3.** Adipocyte differentiation and lipid accumulation of 3T3-L1 adipocytes silenced for *miR-155*. 3T3-L1 pre-adipocytes were transfected with hairpin inhibitor negative control (NC) #1, or with *miR-155* hairpin inhibitor and were cultured to reach adipocyte differentiation for eight days with AS. Cells transfected with the *miR-155* hairpin inhibitor were also differentiated with AS supplemented with CAde (100 µg/ml). (a) Representative microphotographs of adipocytes transfected with hairpin inhibitor negative control (NC) #1, or with *miR-155* hairpin inhibitor ± CAde are shown (X10 magnifications); scale bars, 30 µm. (b) Oil Red O staining of adipocytes transfected with hairpin inhibitor negative control (NC) #1, or with *miR-155* hairpin inhibitor ± CAde. Values are mean ± SEM of determinations from three independent experiments. Statistical significances among groups were tested by one-way ANOVA followed by Bonferroni correction post hoc test (\*\* $p < 0.01$ , and \*\*\* $p < 0.001$  vs hairpin inhibitor negative control (NC) #1).

**Figure S4.** Expression of *miR-155*, *C/EBPβ* and *Creb* during the early stage of adipogenesis in 3T3-L1 cells treated with TNFα or with TNFα and CAde. 3T3-L1 pre-adipocytes were cultured for 0.25, 0.5, 1, 2 and 4 h with AS (Ctrl) or AS supplemented with TNFα (1 ng/ml) ± CAde (100 µg/ml). The miRNA and gene expression were evaluated by quantitative real-time PCR. The levels of *miR-155*, *C/EBPβ* and *Creb* were evaluated by quantitative real-time PCR. *miR-155* (a), *C/EBPβ* (b) and *Creb* (c) expression in CAde-treated cells at 0.25, 0.5, 1, 2 and 4 h post adipogenic induction relative to their levels in un-treated control cells at the same time points. Values are means ± SEM of three independent experiments. Control values at 0.25, 0.5, 1, 2 and 4 h post adipogenic induction were set as 1.00. Statistical significances among groups were tested by one-way ANOVA followed by Bonferroni correction post hoc test. (\* $p < 0.05$ , \*\* $p < 0.01$  and \*\*\* $p < 0.001$  vs control 3T3-L1 cells; \* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$  vs TNFα-treated 3T3-L1 cells).