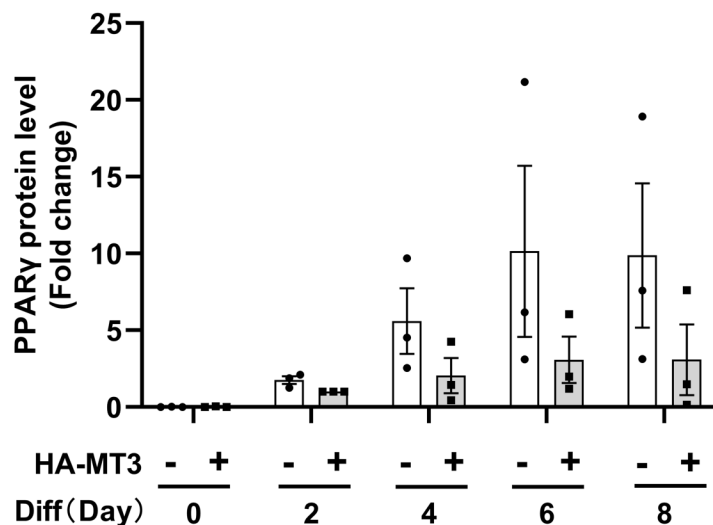
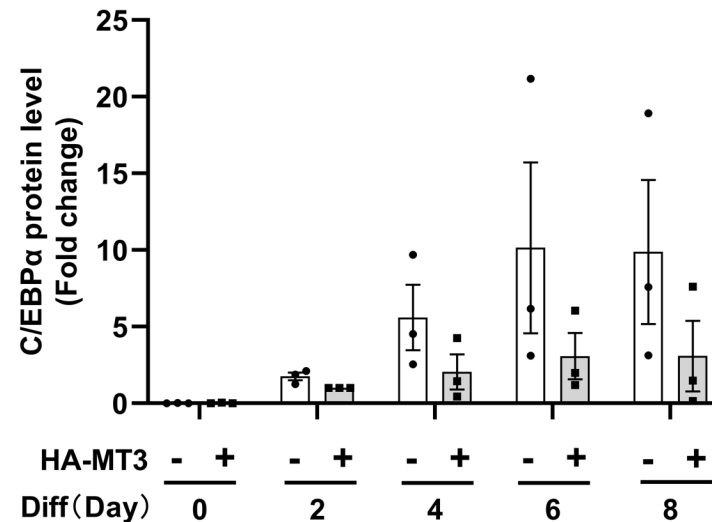


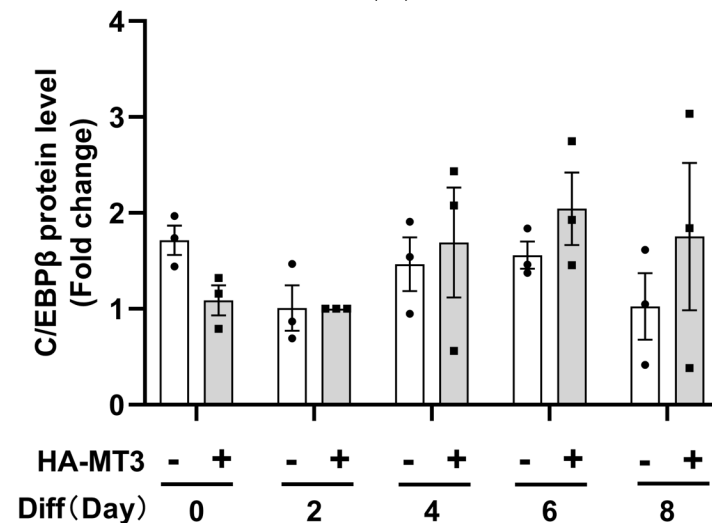
(a)



(b)

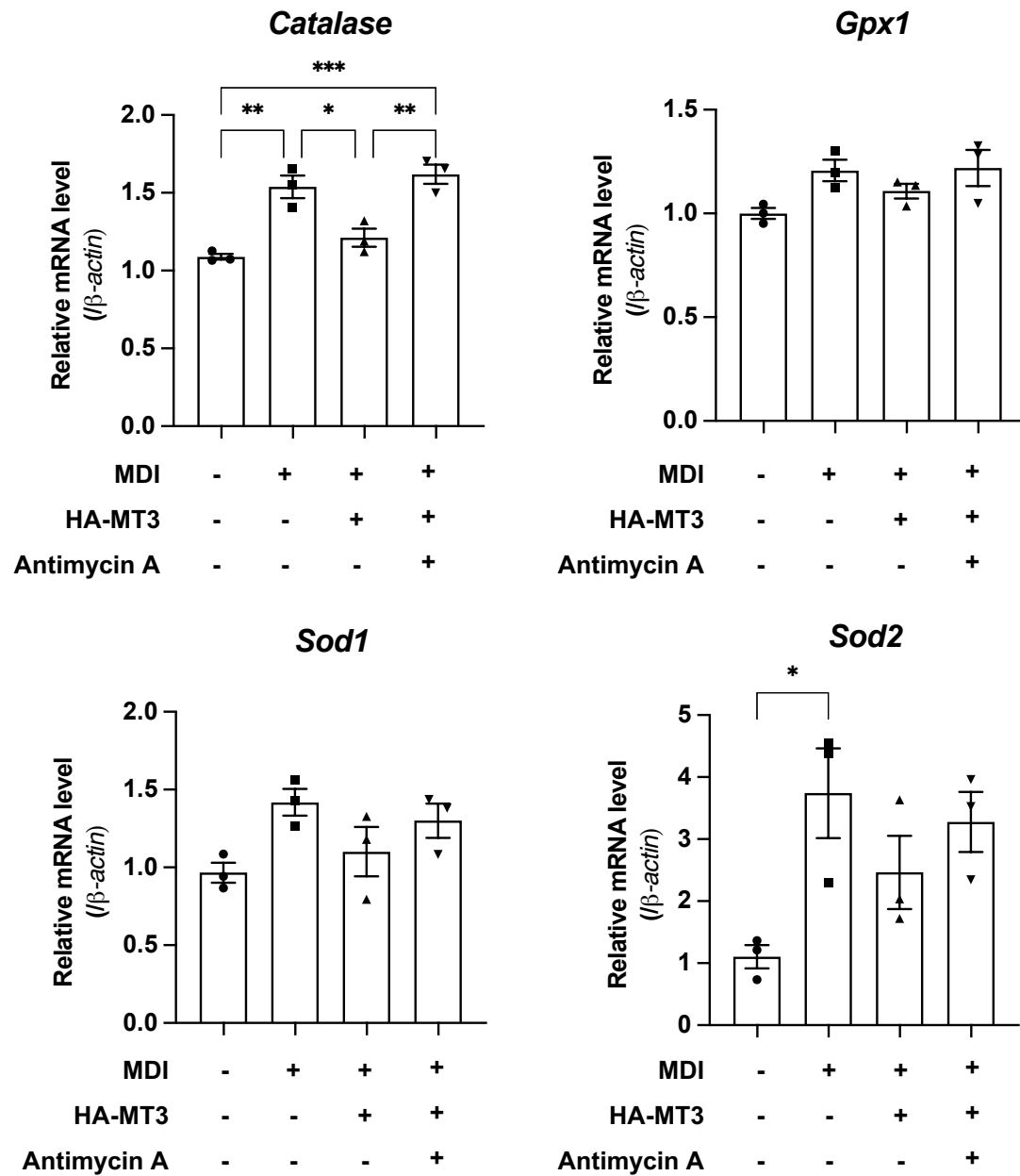


(c)

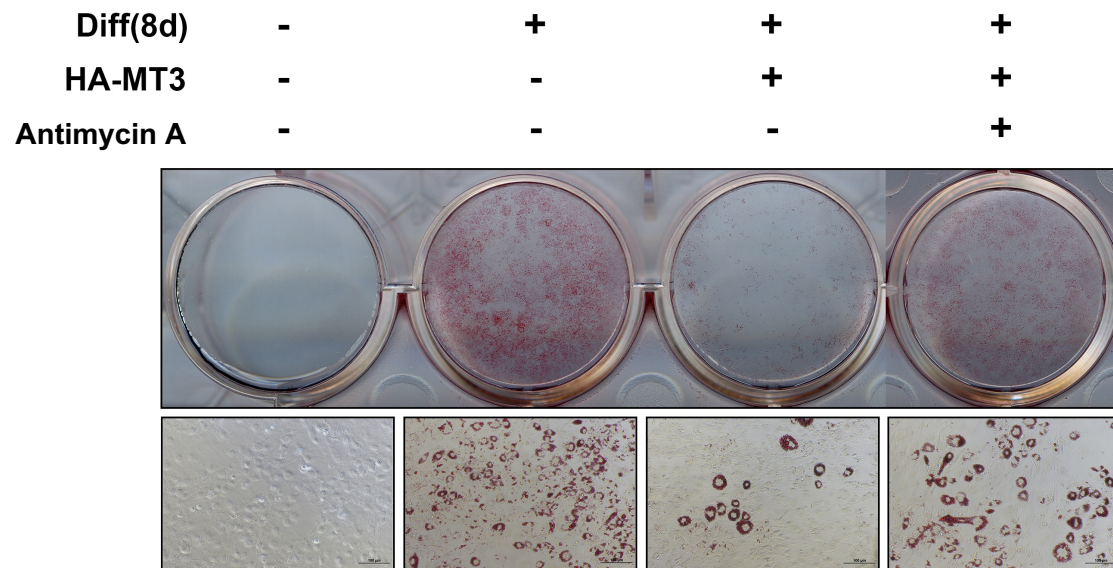


(d)

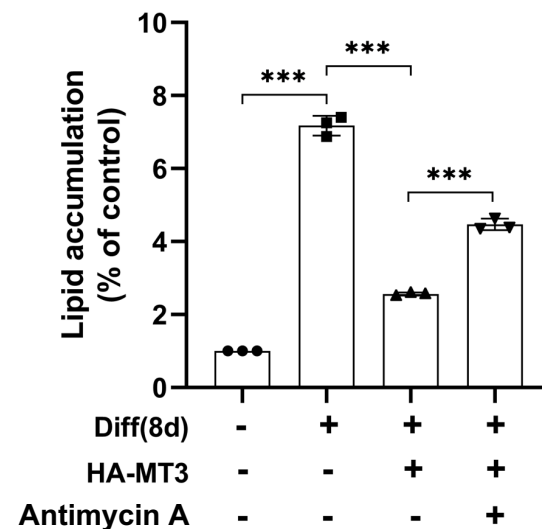
**Figure S1.** The expression profile of MT3 during different stages of 3T3-L1 adipocyte differentiation. The differentiation of 3T3-L1 adipocyte was induced by the differentiation cocktail. The protein samples were harvested at specified times (day 0, 2, 4, 6, and 8). (a) Immunoblotting was used to detect the protein levels of PPAR $\gamma$ , C/EBP $\alpha$ , C/EBP $\beta$ , and  $\alpha$ -Tubulin.  $\alpha$ -Tubulin was used as a loading control. (b–d) The intensities of bands (PPAR $\gamma$ , C/EBP $\alpha$ , C/EBP $\beta$ ) were quantified and normalized with the corresponding  $\alpha$ -Tubulin bands. The data are presented as the means  $\pm$  SEM.



**Figure S2.** *Mt3* overexpression reduces ROS scavenging gene expression in 3T3-L1 cells. 3T3-L1 cells transfected with HA-MT3 plasmid were differentiated induced by differentiation cocktail and treated with or without 100 nM antimycin A for 12 h. The mRNA levels of ROS scavenging genes *Catalase*, *Gpx1*, *Sod1*, and *Sod2* in the different groups were compared by RT-qPCR.  $\beta$ -actin was used as a loading control. The data are presented as the means  $\pm$  SEM. \* $P$  < 0.05, \*\* $P$  < 0.01, and \*\*\* $P$  < 0.001 were calculated by using one-way ANOVA, followed by a Tukey's Test.



(a)



(b)

**Figure S3.** The inhibitory effect of MT3 on adipocyte differentiation is partially reversed by antimycin A. 3T3-L1 cells transfected with or without HA-MT3 plasmid were incubated with differentiation cocktail to induce adipocyte differentiation and treated with or without 25 nM antimycin A for 8 days. (a) Representative images of 3T3-L1 adipocytes were captured at 200 $\times$  magnification. Scale bar = 100  $\mu$ m. (b) The lipid accumulation in 3T3-L1 adipocytes was quantified as a percentage of control values. \*\*\* $P$  < 0.001 vs. the corresponding undifferentiated group & differentiated group were calculated by using one-way ANOVA, followed by a Tukey's Test.