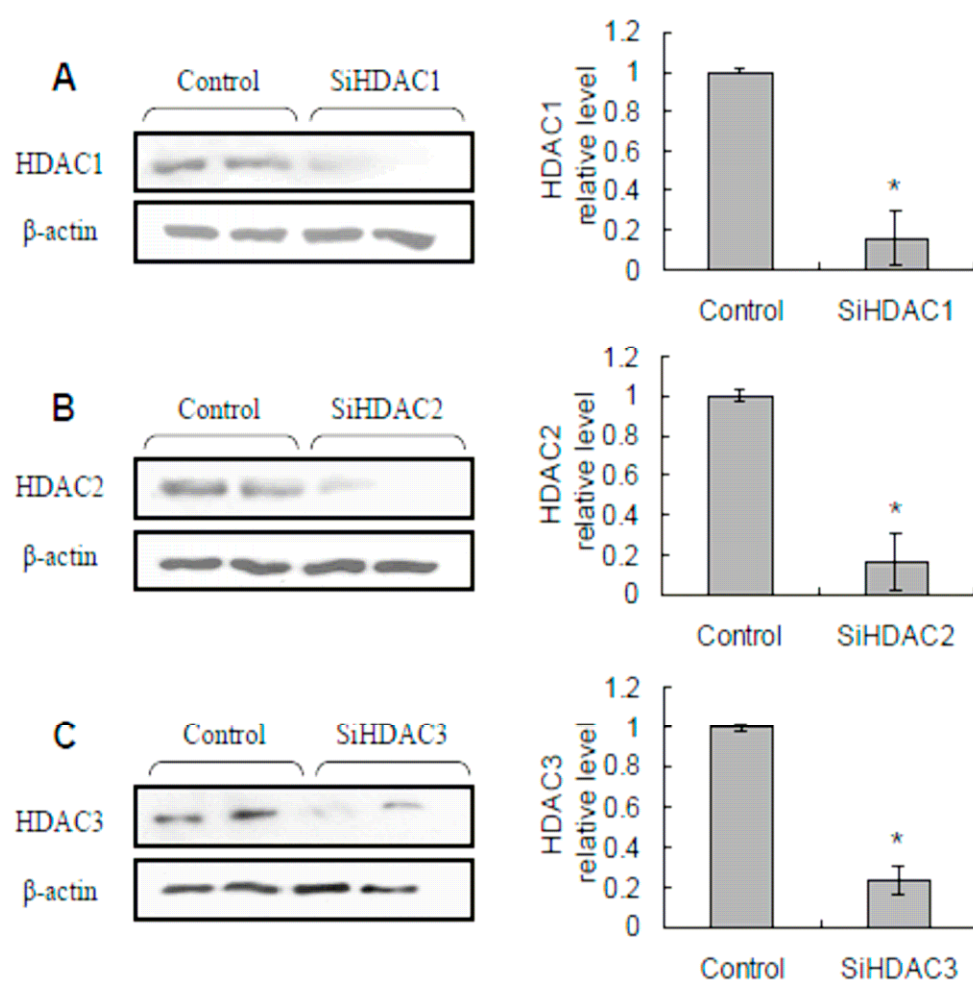


# SUPPLEMENTARY DATA

**Supplementary Figure 1.** Knockdown of HDAC1, HDAC2 and HDAC3 by siRNA. Western blot analysis was used to determine the levels of HDAC1 (**A**), HDAC2 (**B**), HDAC3 (**C**) in 293 cells. The relative expression was normalized with  $\beta$ -actin. All of siRNA reduced the expression of their target genes in a specific manner. Quantification was performed using the software ImageJ. Data are expressed as mean  $\pm$  SEM (n = 4). \*, vs. control,  $P < 0.05$ .



## SUPPLEMENTARY DATA

**Supplementary Figure 2.** Butyrate reduces glucose in the dietary obese mice. **(A)** Blood glucose concentrations at 7 hrs after butyrate injection in the obese mice. **(B)** Correlation of the blood glucose drop with the increase in serum FGF21 in obese mice treated with butyrate. **(C)** Correlations of the blood glucose drop with the increase in serum FGF21 in the obese mice treated with TSA. Data were expressed as mean  $\pm$  SEM (n = 6-8). \*, vs. PBS,  $P < 0.05$ .

