

**Hesperidin promotes fatty acid  $\beta$ -oxidation by activating  
SIRT1/PGC1 $\alpha$  to improve NAFLD induced by high-fat-diet**

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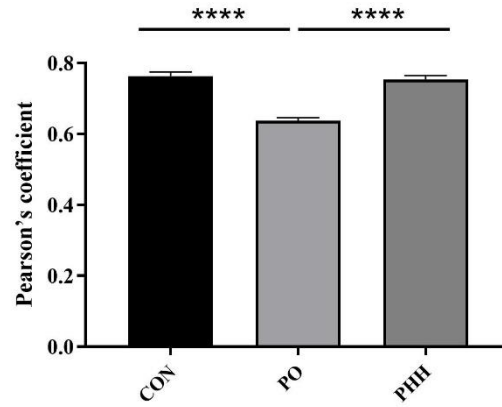
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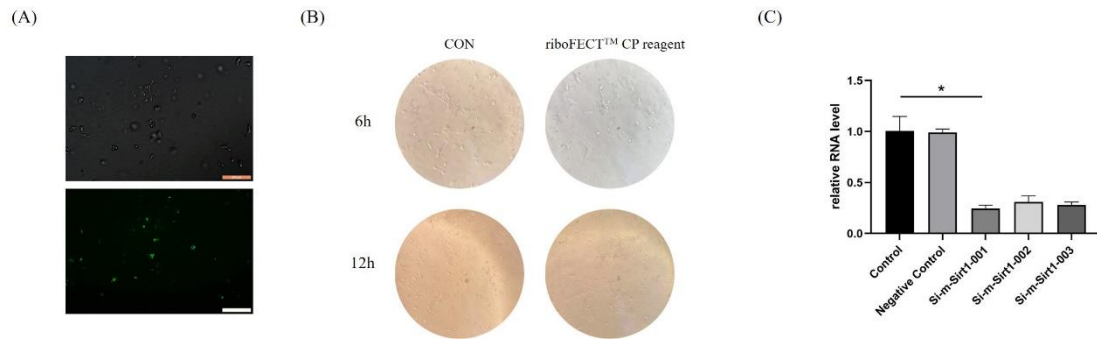
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**Figure S1. Pearson's coefficient of Sirt1 and PGC1 $\alpha$  co-localization.**

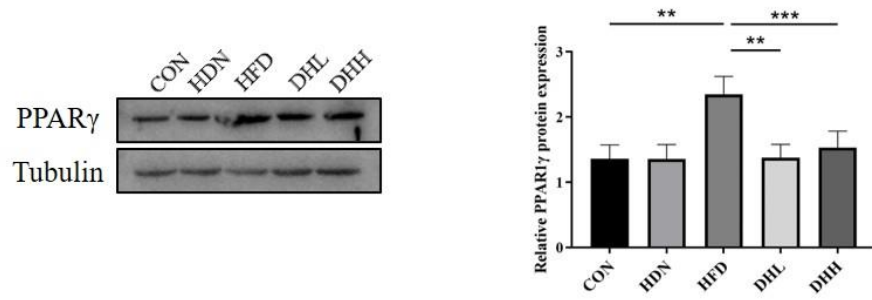
Pearson can quantify the closeness and direction of correlation of the linear relationship between two continuous variables. Its value is between -1 and 1. The closer the value is to 0, the lower the correlation between variables; the closer the value is to 1 or -1, the stronger the correlation. \*\*\*\* $p < 0.0001$ .



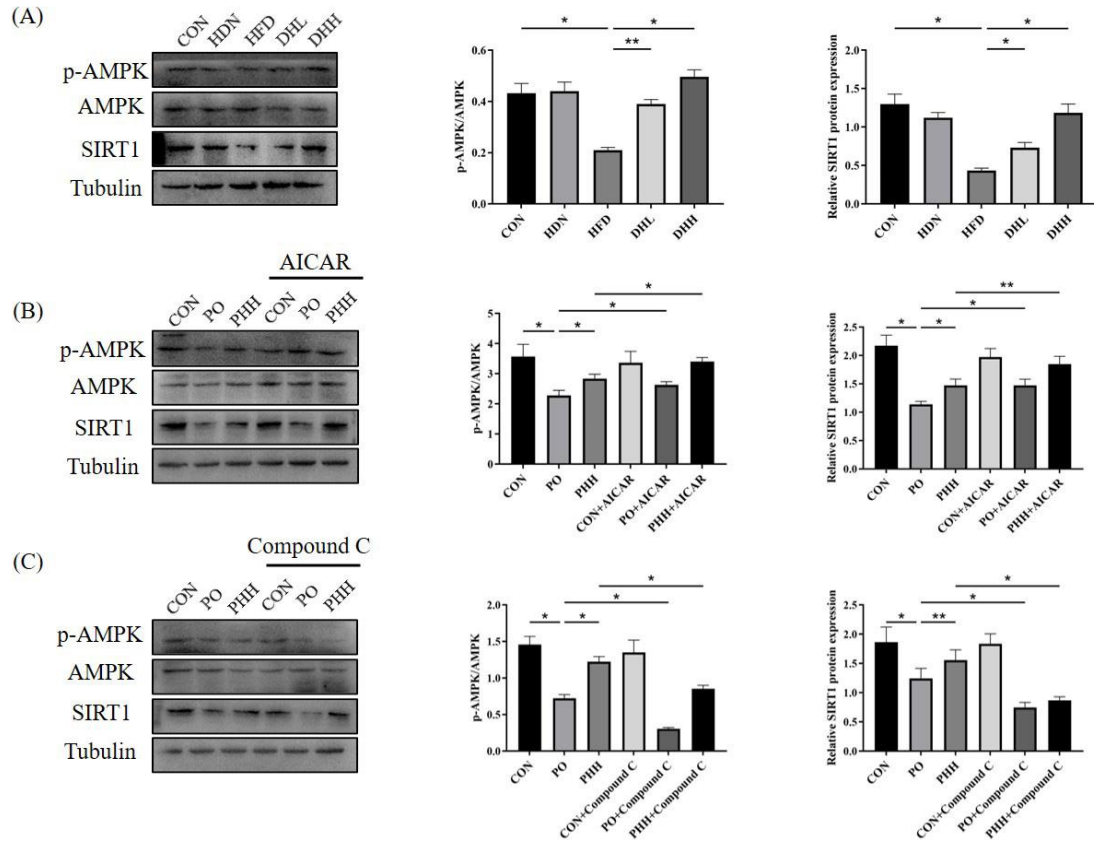
**Figure S2. SiRNA transfection efficiency and transfection reagent toxicity testing.**

(A) AML12 cells were seeded at  $1 \times 10^4$  cells per well in 24-well dishes to achieve a cell density of 30%-50% at the time of transfection. The AML12 cells were transfected with 50 nM of fluorescent siRNA using riboFECT™ CP reagent. The transfection efficiency of siRNA was observed. (B) The effect of transfection reagents on cells with transfection time (6h, 12h). (C) SiRNA transfection efficiency and selection. \* $p < 0.05$ .

(A)



**Figure S3. Effect of HDN on PPAR $\gamma$ .**(A) The protein bands and quantitative results of PPAR $\gamma$ . \*\*p < 0.01 and \*\*\*p < 0.001.



**Figure S4. Effect of HDN on AMPK and SIRT1 after PO and HFD exposure.**

(A) The protein bands and quantitative results of AMPK, p-AMPK and SIRT1. (B) The protein bands and quantification results of AMPK, p-AMPK and SIRT1 after intervention with the AMPK activator AICAR. (C) The protein bands and quantification results of AMPK, p-AMPK and SIRT1 after intervention with the AMPK inhibitor Compound C. \* $p < 0.05$  and \*\* $p < 0.01$ .