

Resveratrol blocks retrotransposition of LINE-1 through PPAR α and sirtuin-6

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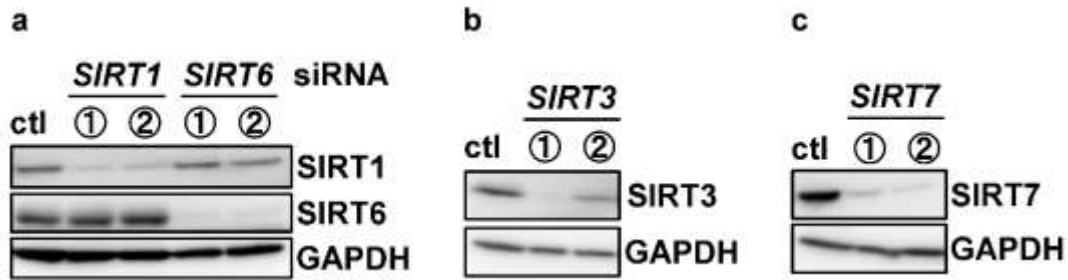
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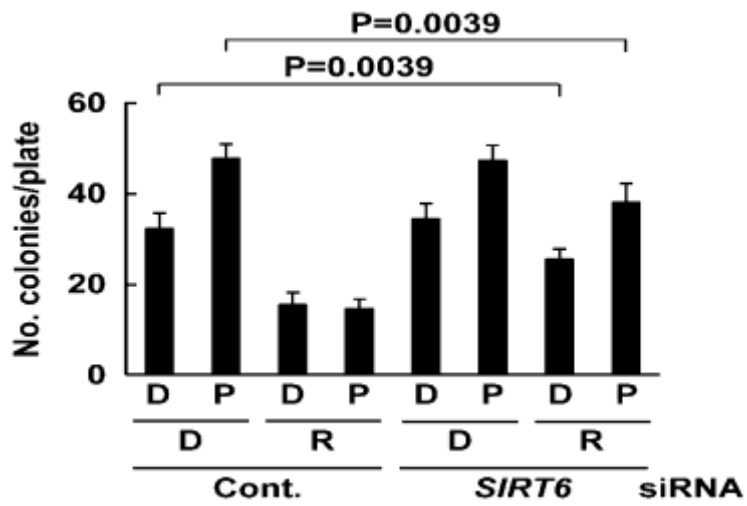
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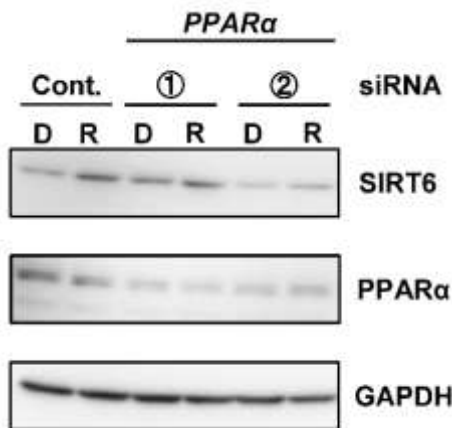
Supplementary Figure S1. Two siRNAs sequence efficiently suppressed the expression of SIRT1, SIRT3, SIRT6, and SIRT7.

A. Effects of SIRT1 and SIRT6 siRNA on the expression of the endogenous SIRT1 and SIRT6 protein. The latter was examined in HeLa cells that had been transfected with pL1-NeoR and siRNA. Ctl, control siRNA (10 nM); ① and ②, SIRT1 siRNA-1 or siRNA-2 (10 nM), ① and ②, SIRT6 siRNA-1 or siRNA-2 (10 nM), respectively. B, C. Effects of SIRT3 and SIRT7 siRNA on endogenous SIRT3 and SIRT7 protein expression. The latter was examined in HeLa cells that had been transfected with pL1-NeoR and siRNA. Ctl, control siRNA (10 nM); ① and ②, SIRT3 siRNA-1 or siRNA-2 (10 nM), ① and ②, SIRT7 siRNA-1 or siRNA-2 (10 nM), respectively.



Supplementary Figure S2. Downregulation of SIRT6 dissolves RV inhibited PhIP of L1-RTP.

A colony formation assay was performed for HeLa cells after introducing either control siRNA or SIRT6 siRNA-1. 0.02 % DMSO: D, 18 μ M PhIP: P, 20 μ M RV: R.



Supplementary Figure S3. RV-mediated SIRT6 expression depends on *PPARα*.

RV treatment increased the level of SIRT6 expression in HeLa cells. WB analysis was performed after introducing either control siRNA or *PPARα* siRNA-1,2, respectively. The cells were treated with 0.02% DMSO (D) or 20 μ M RV (R) for two days. The relative intensity \pm SD is shown. The effects of *PPARα* siRNAs were significant ($p < 0.05$). Asterisks indicate statistical significance ($p < 0.05$ compared to control siRNA in RV treatment).