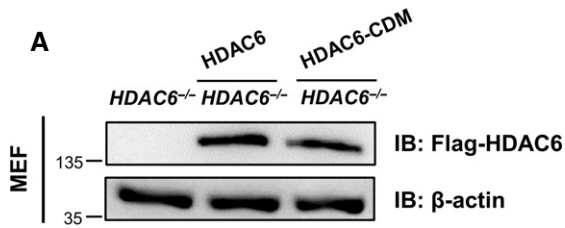


## Expanded View Figures

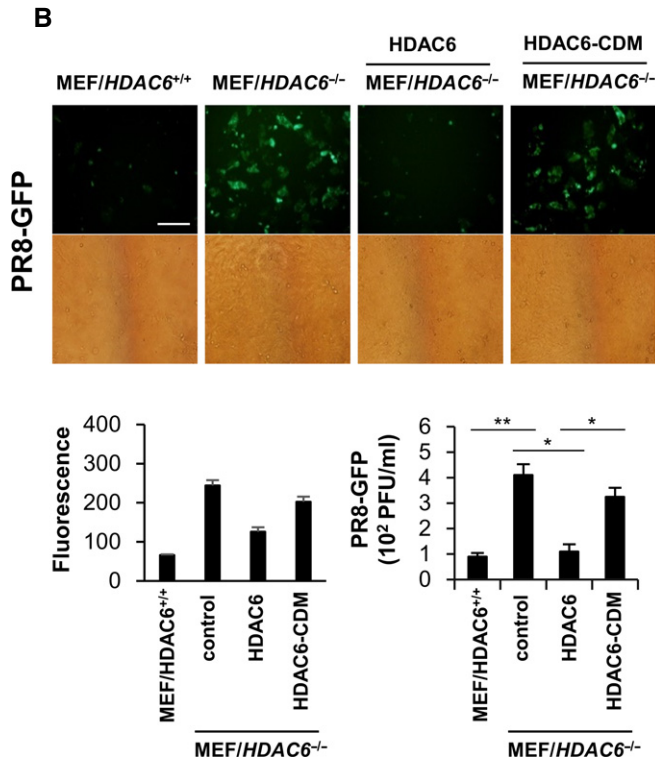


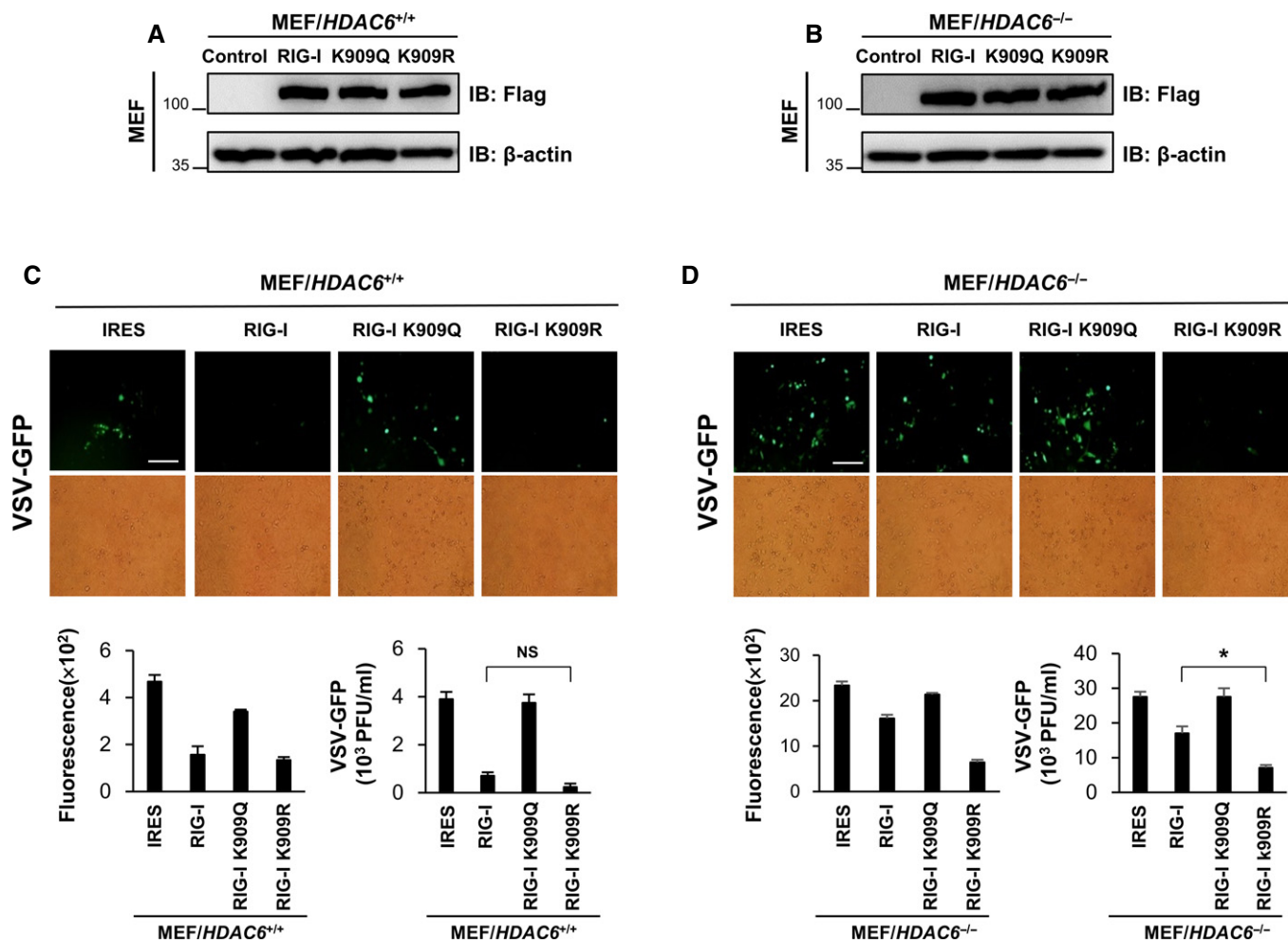
**Figure EV1. Catalytic activity of HDAC6 is responsible for antiviral effect.**

A HDAC6<sup>-/-</sup> MEF were transiently transfected with HDAC6-IRES-flag and HDAC6-CDM-IRES-flag.

B Fluorescence microscopy, green fluorescence absorbance and virus replication at 24 hpi in WT and RIG-I<sup>-/-</sup> MEFs. Cells were transiently transfected with empty vector, HDAC6, HDAC6-CDM for 36 h, followed by infection with PR8-GFP (MOI = 1). Data are representative of at three independent experiments. Error bars, mean ± SD. \**P* < 0.05, \*\**P* < 0.01 (Student's *t*-test). Scale bar, 100 μm.

Source data are available online for this figure.



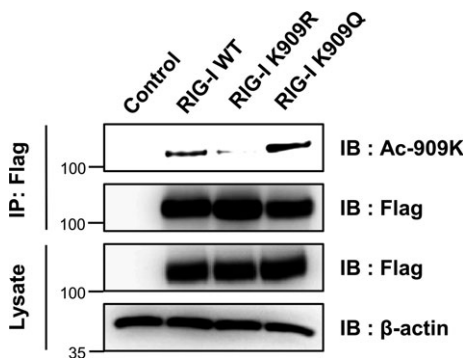


**Figure EV2. Effect of RIG-I and RIG-I mutant in WT and HDAC6<sup>-/-</sup> MEFs.**

A, B HDAC6<sup>+/+</sup> and HDAC6<sup>-/-</sup> MEF were transiently transfected with RIG-I-IRES-flag and RIG-I K909Q, R-IRES-flag.

C, D Fluorescence microscopy, green fluorescence absorbance and virus replication at 24 hpi in WT and HDAC6<sup>-/-</sup> MEFs. Cells were transfected with the indicated plasmids for 36 h, followed by infection with VSV-GFP (MOI = 1). Data are representative of three independent experiments. Error bars, mean ± SD. \*P < 0.05 (Student's t-test). Scale bar, 100 μm.

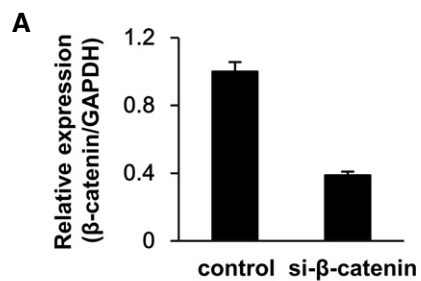
Source data are available online for this figure.



**Figure EV3. Acetylated K909 lysine-specific antibody has higher affinity to acetylation-mimic mutant (K909Q) than acetylation-resistant mutant (K909R).**

293T cells were transfected with 2 μg of FLAG-tagged RIG-I, K909R, K909Q, or empty vector. At 36 h post-transfection, whole cell lysates were prepared for immunoprecipitation. Samples were analyzed by Western blotting with a K909 acetylation-specific antibody. Actin was used as the loading control.

Source data are available online for this figure.



**Figure EV4. Effect of knockdown of  $\beta$ -catenin in control and HDAC6-overexpressing RAW264.7 cell line against VSV-GFP infection.**

**A**  $\beta$ -catenin expression level was decreased in control and HDAC6-overexpressing Raw264.7 cell line after siRNA transfection.  
**B** Fluorescence microscopy, green fluorescence absorbance and virus replication at 24 hpi in control and HDAC6-overexpressing RAW 264.7. Cells were transfected with si-control and si- $\beta$ -catenin for 36 h, followed by infection with VSV-GFP (MOI = 1). Data are representative of at least three independent experiments. Error bars, mean  $\pm$  SD. \* $P$  < 0.05 (Student's  $t$ -test). Scale bar, 100  $\mu$ m.

