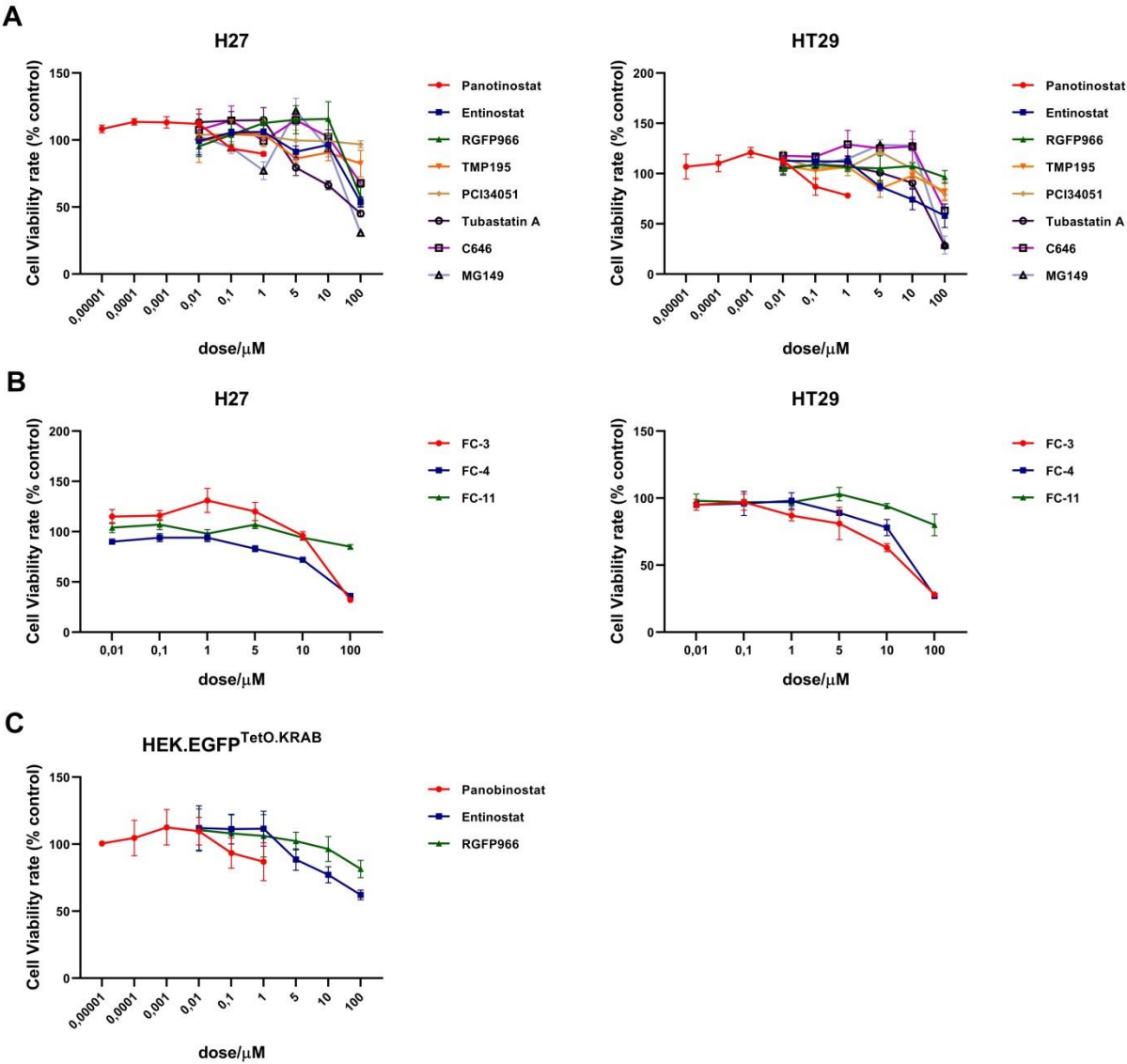
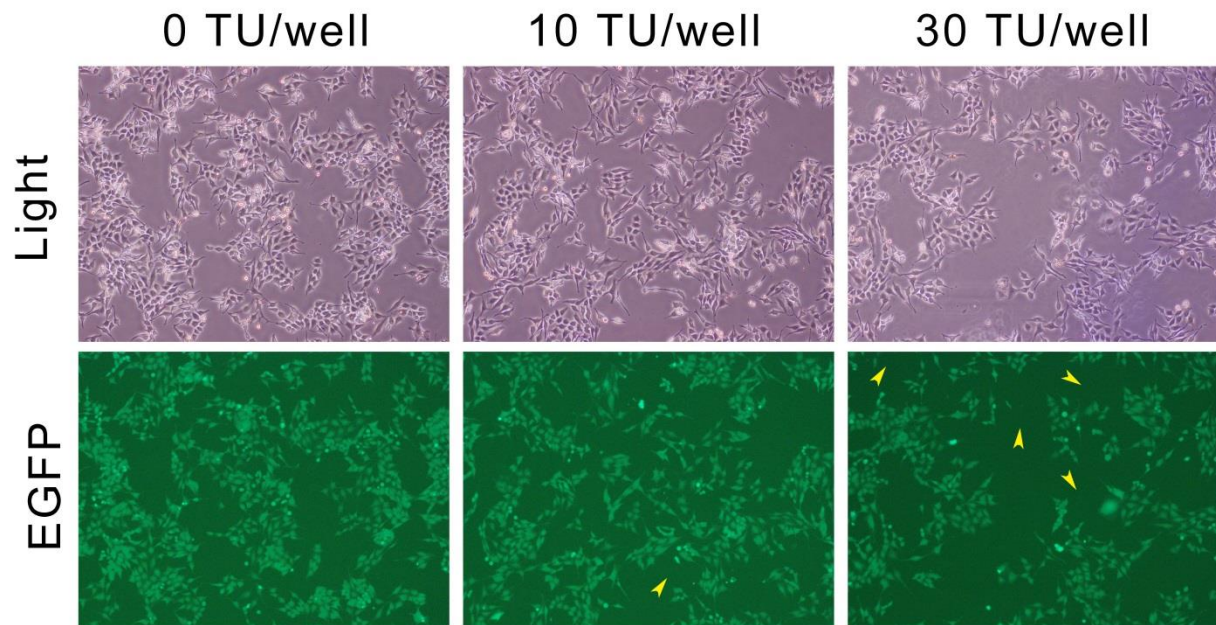


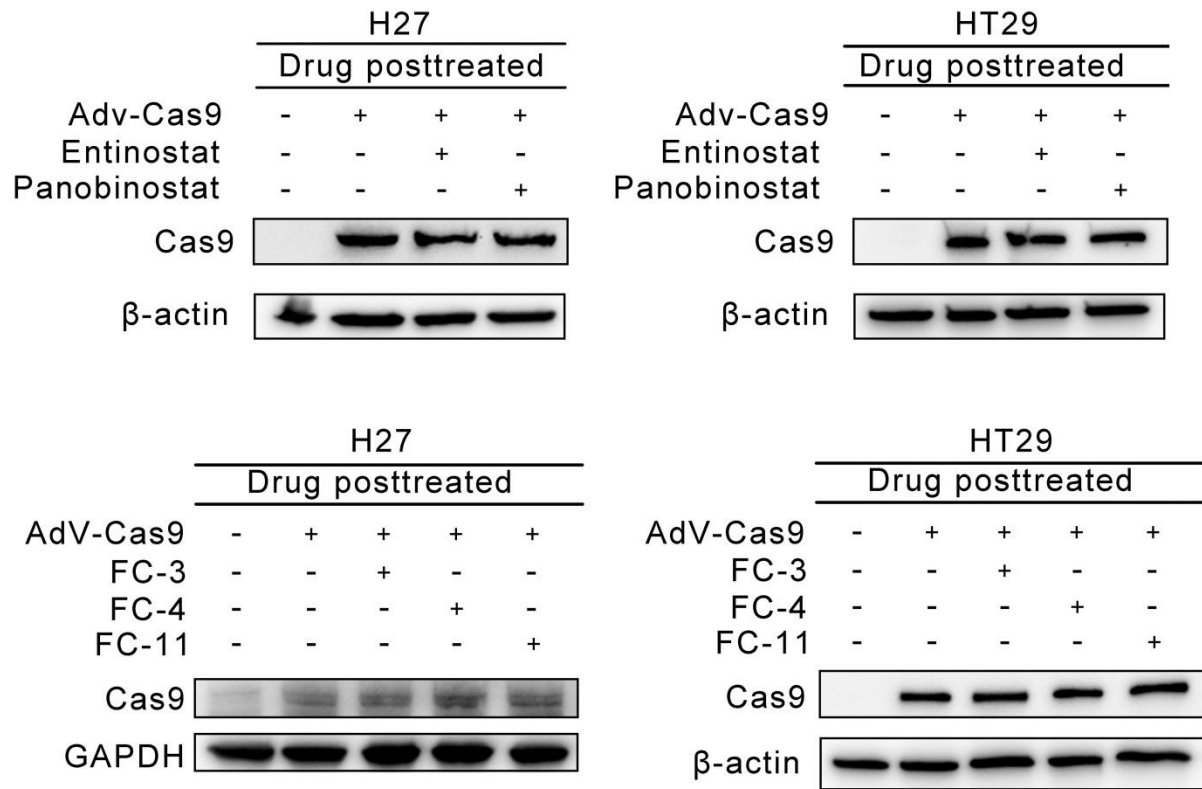
Supplementary



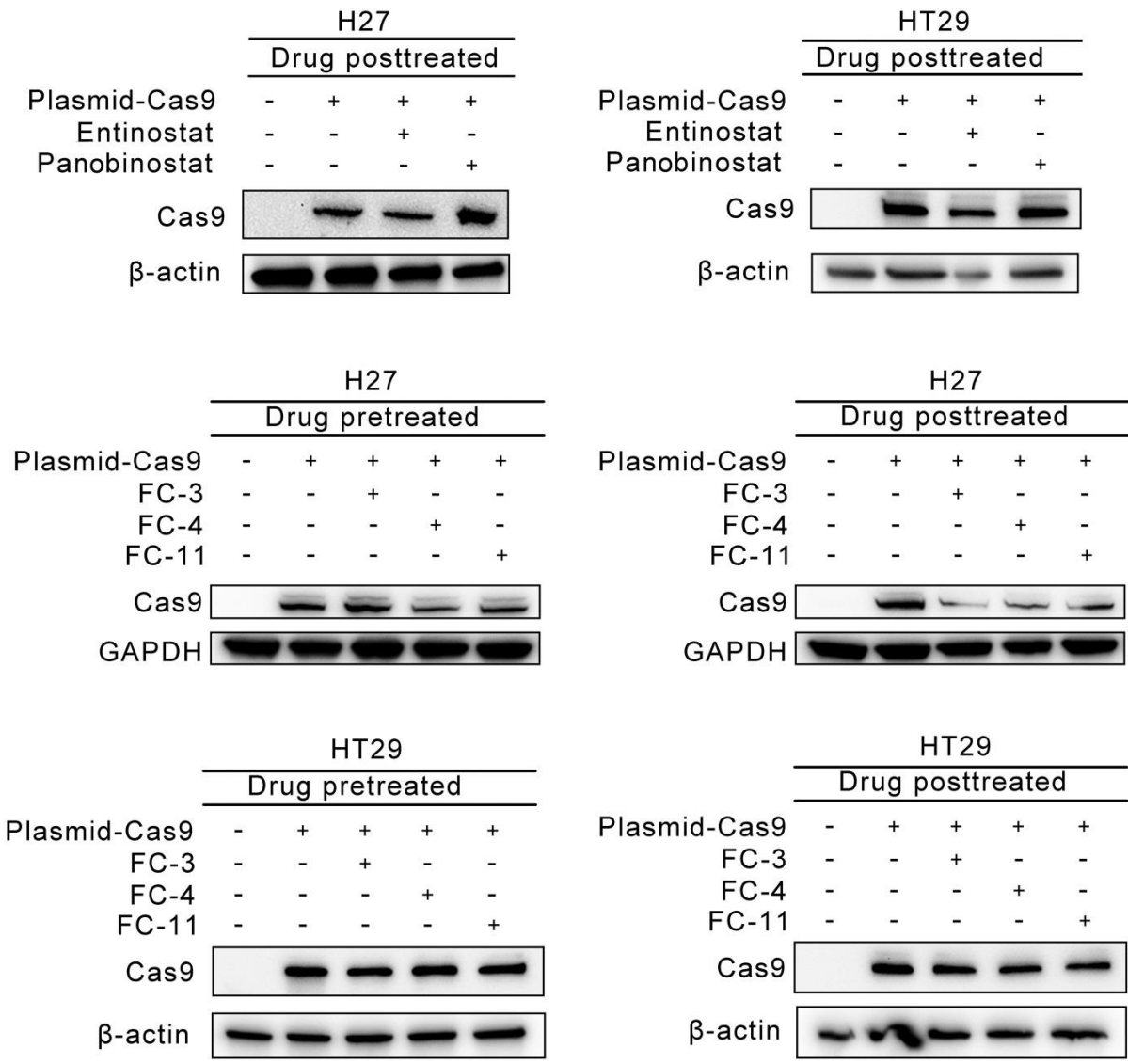
**Figure S1 Cell viability assessment with HDAC/HDAT inhibitors treatment.** Cells were treated with inhibitors at indicated dose for 24 h, and cell viability was determined by MTS assay. Data in bar graphs are represented as mean  $\pm$  SD (n $\geq$ 3).



**Figure S2 A MOI of 30 TU/cells is suitable for AdV-Cas9 and AdV-gRNA co-transduction.** Fluorescence microscopy of H27 cells transduced with 0, 10, 30 or 100TU/well of both AdV-Cas9 and AdV-gRNA without fluorescence (upper panel) and with EGFP fluorescence (lower panel). The yellow arrows show the EGFP knockout cells.



**Figure S3.** Western blot analysis of AdV-Cas9 protein expression with post-treatment of HDAC inhibitors using the same dose as shown in knockout for 48 hr.



**Figure S4.** Western blot analysis of plasmid Cas9 protein expression with pre-treatment or post-treatment of HDAC inhibitors using the same dose as shown in gene editing study.

**Supplementary Table S1. List of primers used for HDACs RT-qPCR**

<b>Name</b>	<b>Strand</b>	<b>Sequence</b>
HDAC-1	F	5'-GGAAATCTATCGCCCTCACA -3'
	R	5'-AACAGGCCATCGAATACTGG -3'
HDAC-2	F	5'-AGACTGCAGTTGCCCTTGAT -3'
	R	5'-TGCGCAAATTTTCAAACAAA -3'
HDAC-3	F	5'-TGGCTTCTGCTATGTCAACG -3'
	R	5'- CCCGGTCAGTGAGGTAGAAA-3'
GAPDH	F	5'-ACCCAGAAGACTGTGGATGG -3'
	R	5'-TCTAGACGGCAGGTCAGGTC -3'