## Histone Deacetylase Inhibitors Sensitize TRAIL-Induced Apoptosis in Colon Cancer Cells

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rhTRAIL variants (ng/ml)

**Figure S1.** 5  $\mu$ M of HDAC inhibitors RGFP966 or PCI34051 increase the sensitivity of DLD-1 (**A**) or WiDr (**B**) cells to rhTRAIL 4C7 or DHER. The values shown are mean ± SD from one of three experiments performed in triplicate. *p* values were analyzed by one-way ANOVA in Turkey's multiple comparison with Graphpad Prism version 7.0. \* 0.01 ≤ *p* ≤ 0.05, \*\* 0.001 ≤ *p* ≤ 0.01, \*\*\* 0.0001 ≤ *p* ≤ 0.001.



**Figure S2.** HDAC inhibitors increase TRAIL-mediated apoptosis. (**A**) Morphological changes of WiDr cells treated with 5  $\mu$ M HDAC inhibitors and 25 ng/mL rhTRAIL 4C7 or DHER observed under an inverted light microscope with 20× magnification. (**B**) DLD-1 or WiDr cells were pre-treated by 10  $\mu$ M HDAC inhibitors for 24 h and then incubate with 25 ng/mL rhTRAIL 4C7 or DHER for overnight. Apoptotic cells were detected using the Violet Ratiometric Membrane Asymmetry Probe. The values shown are mean ± SD from one of three experiments performed in triplicate.



F2N12S ratio 585nm/530nm fluorescence

**Figure S3.** After 72 h transfection with siRNA, WiDr cells were treated with 25 ng/mL rhTRAIL 4C7 or DHER and apoptotic cells were detected using the Violet Ratiometric Membrane Asymmetry Probe.



**Figure S4.** Alterations of death receptor expression after incubating with 10 µM RGFP966 or PCI34051 for 24 or 48 h on DLD-1 (**A**) or WiDr (**B**) cells.



**Figure S5.** SAHA or Entinostat changes cell cycle after incubating for 24 h on DLD-1 (**A**) or WiDr (**B**) cells. Red peaks represent G0/G1 and G2 phase. Purple areas represent dead cells or debris. Statistical analysis on the right panel is according to the data on the left.

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Name	Strand	Sequence
HDAC1 -	F	5'-AACAGGCCATCGAATACTGG-3'
	R	5'-GGAAATCTATCGCCCTCACA-3'
HDAC2 -	F	5'-AGACTGCAGTTGCCCTTGAT-3'
	R	5'-TGCGCAAATTTTCAAACAAA-3'
HDAC3 -	F	5'-TGGCTTCTGCTATGTCAACG-3'
	R	5'-CCCGGTCAGTGAGGTAGAAA-3'
HDAC8 -	F	5'- ATTCTCTACGTGGATTTGGATC-3'
	R	5'-ATGCCATCCTGAATGGGCACA-3'
$\alpha$ -tublin –	F	5'-CTTCGTCTCCGCCATCAG-3'
	R	5'-CGTGTTCCAGGCAGTAGAGC-3'

Table S1. List of primer sets used for qRT-PCR.



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