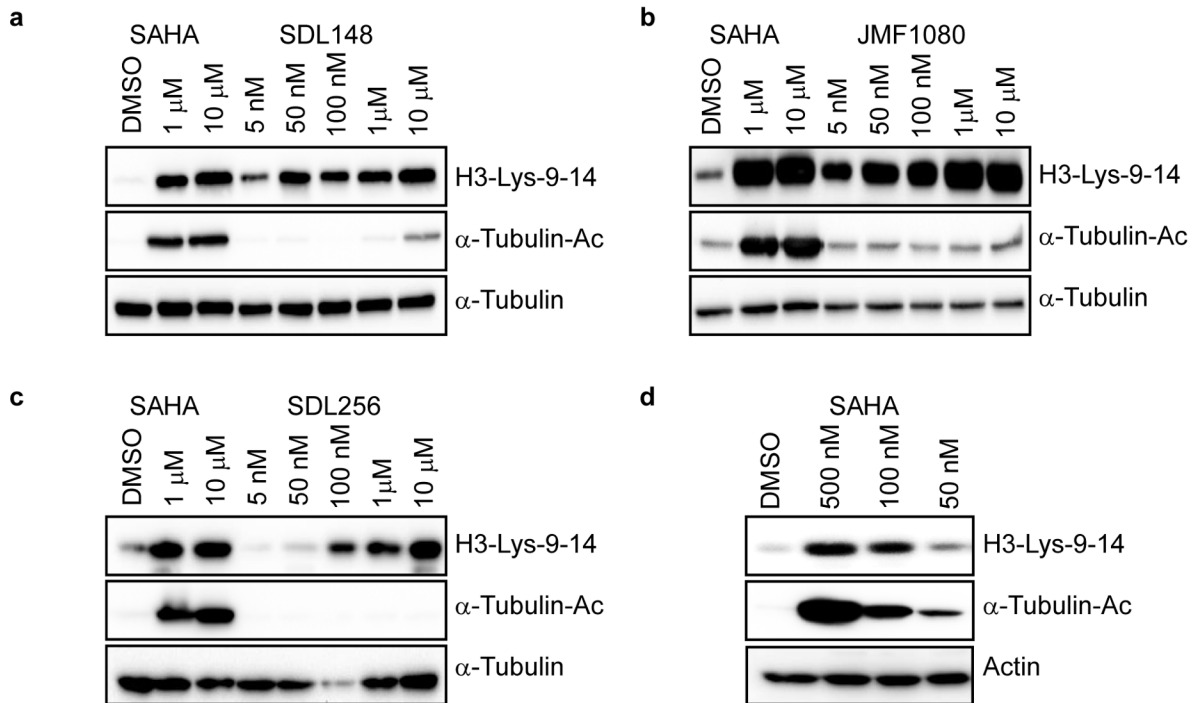


Supplementary Information

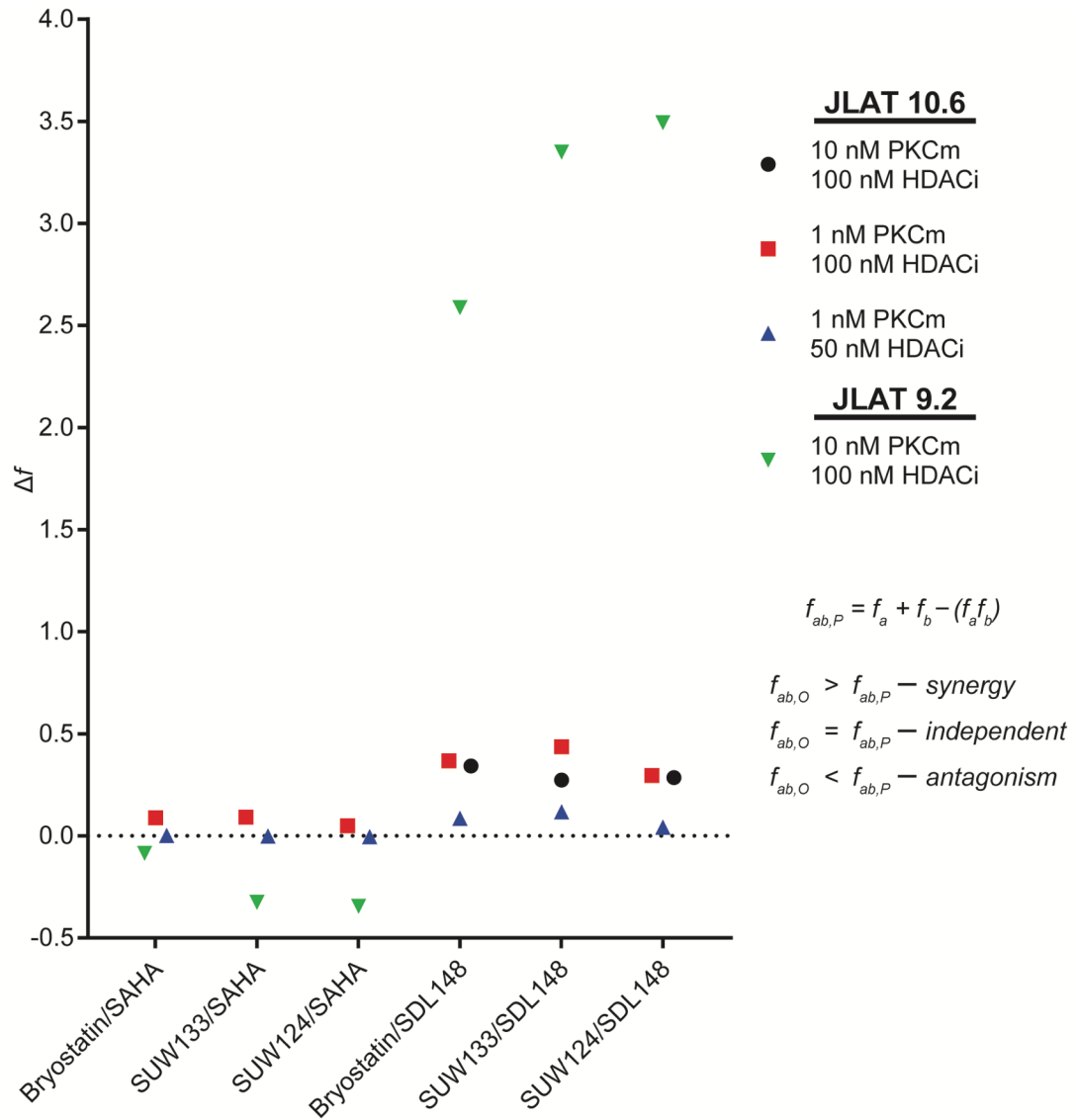
**Combinations of isoform-targeted histone deacetylase inhibitors and bryostatin analogues display remarkable potency to activate latent HIV without global T-cell activation.**

Brice J. Albert, Austin Niu, Rashmi Ramani, Garland R. Marshall, Paul A. Wender, Robert M. Williams, Lee Ratner, Alexander B. Barnes, George B. Kyei

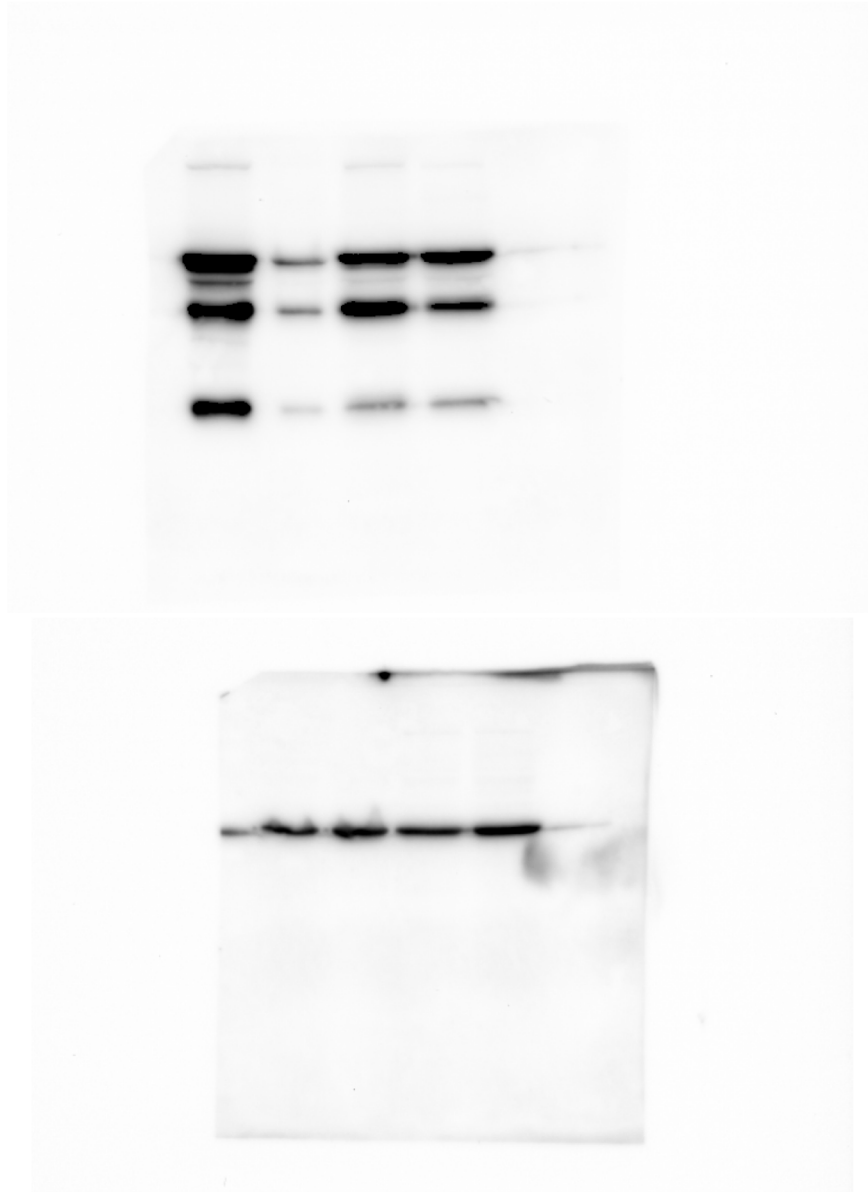


**Supplementary Figure S1. HDAC inhibition in HeLa and primary T-cells.**

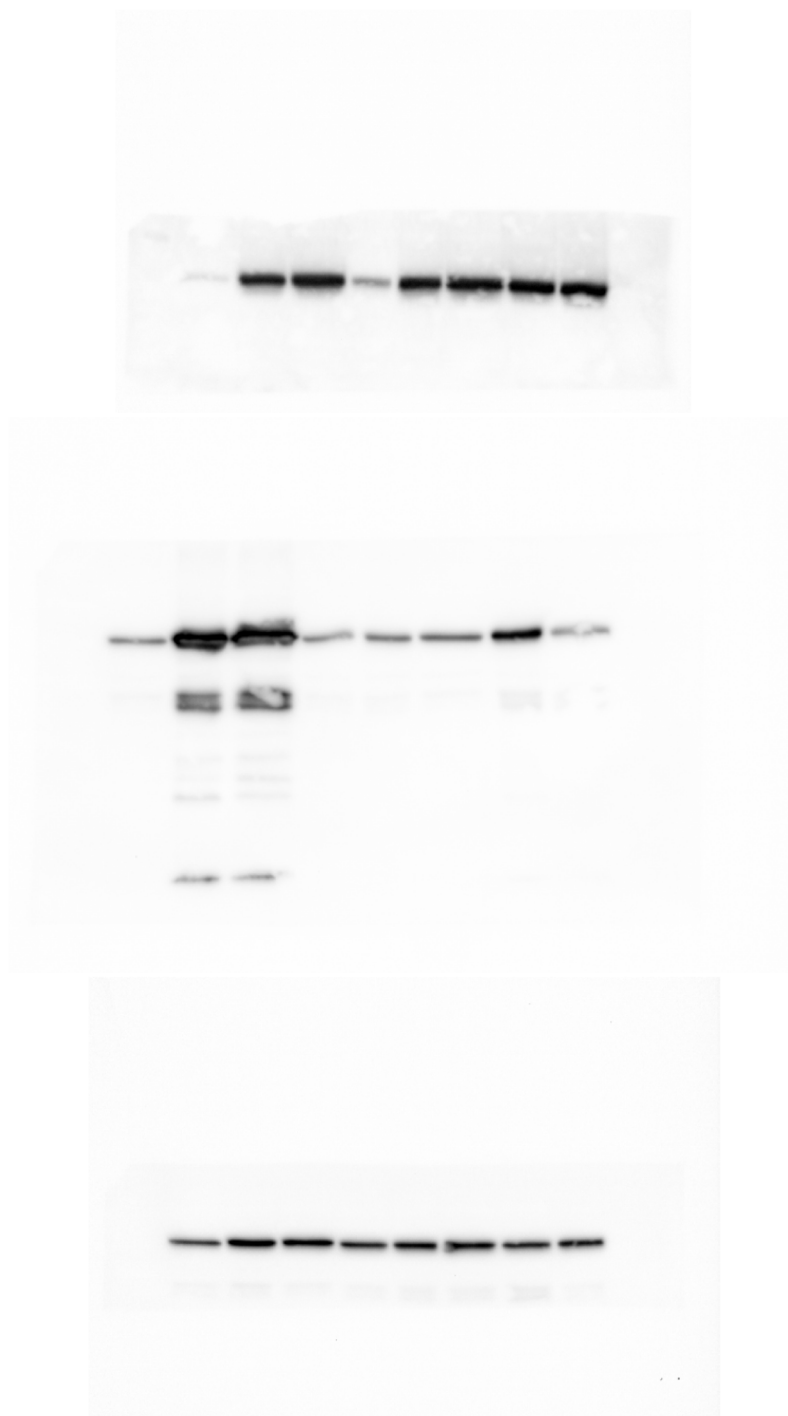
Compounds at indicated concentrations were incubated with HeLa cells (**a-c**) or primary T-cells (**d**) for 8h and WB performed for acetylated histone H3 (a marker of class I HDAC inhibition) or acetylated tubulin (a marker for HDAC6, class II HDAC) inhibition. Related to Fig. 5.



**Supplementary Figure S2. Combination LRA fractional differences per Bliss independence prediction.** The fractional difference ( $\Delta f$ ) is calculated by taking the difference between the observed fractional response ( $f_{ab,O}$ ) and the predicted fractional response ( $f_{ab,P}$ ) to determine if the two drugs are truly independent. The predicted fractional response ( $f_{ab,P}$ ) is found per the Bliss independence model by taking the observed fractional response of drug A ( $f_a$ ), adding it to the observed fractional response of drug B ( $f_b$ ) and subtracting the fractional response that might arise from a simultaneous response of drug A



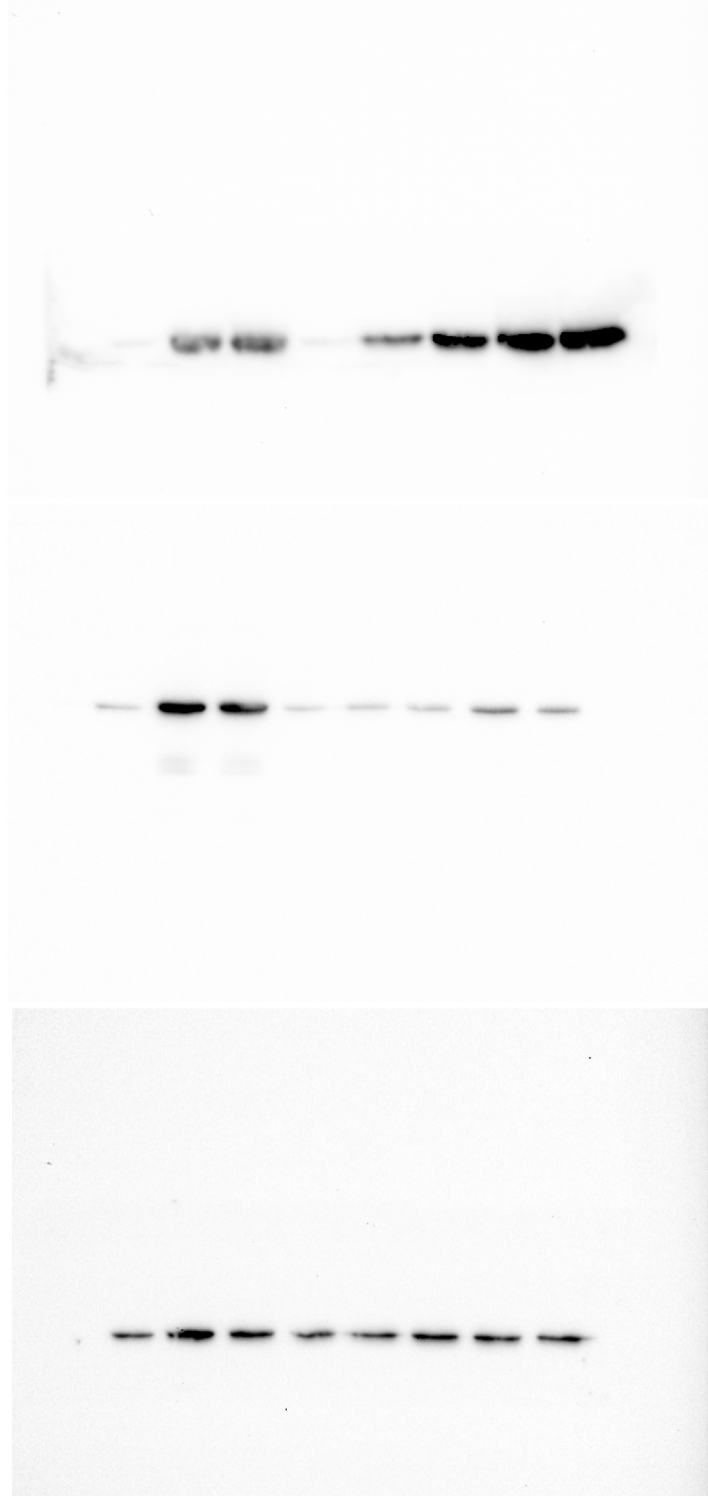
**Supplementary Figure S3. Full unedited gels shown in Figure 3D of manuscript. (Top) The right three lanes are shown in the figure. (Bottom) Actin blot for the same gel.**



**Supplementary Figure S4. Full unedited gels shown in Figure 5a, left (SDL148) of manuscript. (top) H3-Lys-9-14. (center)  $\alpha$ -Tubulin-Ac. (bottom)  $\alpha$ -Tubulin**



**Supplementary Figure S5. Full unedited gels shown in Figure 5a, center (JMF1080) of manuscript. (top) H3-Lys-9-14. (center)  $\alpha$ -Tubulin-Ac. (bottom)  $\alpha$ -Tubulin**



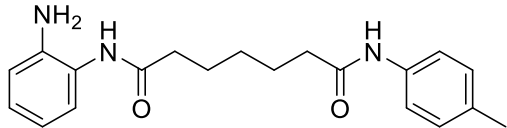
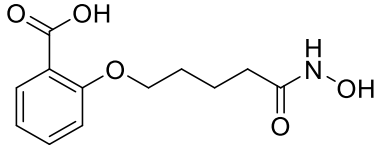
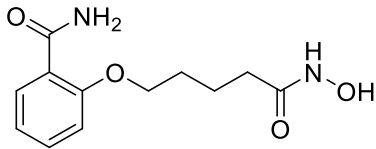
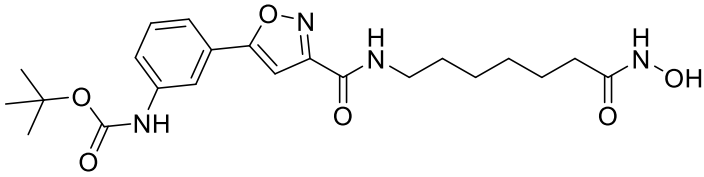
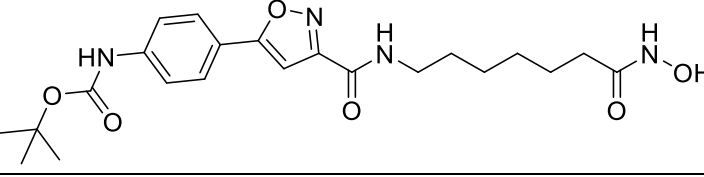
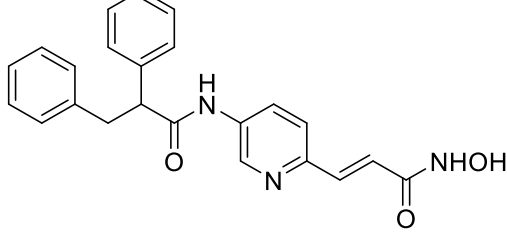
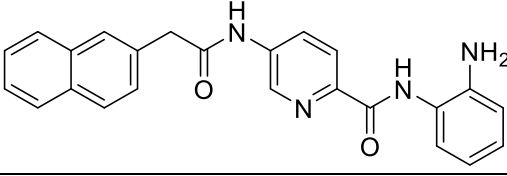
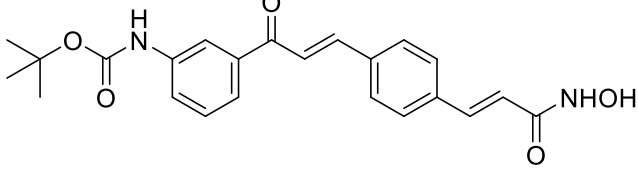
**Supplementary Figure S6. Full unedited gels shown in Figure 5a, right (SDL256) of manuscript. (top) H3-Lys-9-14. (center)  $\alpha$ -Tubulin-Ac. (bottom)  $\alpha$ -Tubulin**

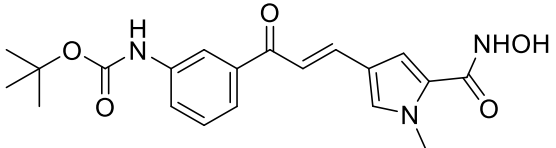
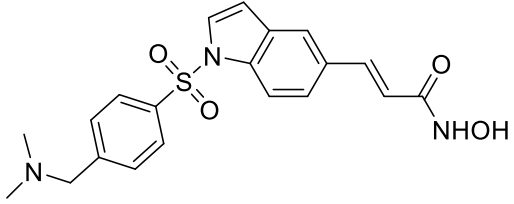
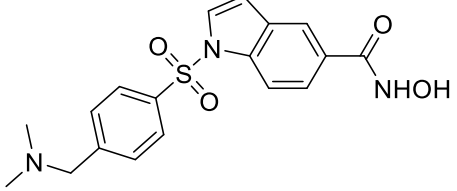
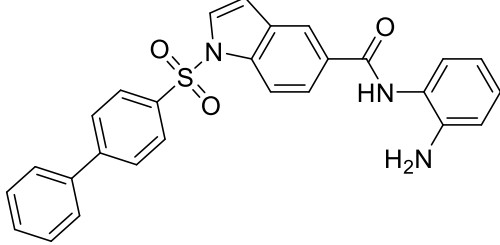
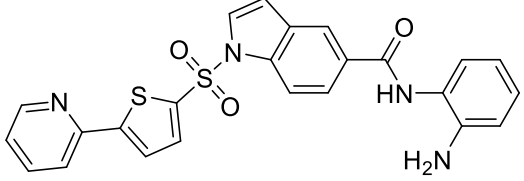
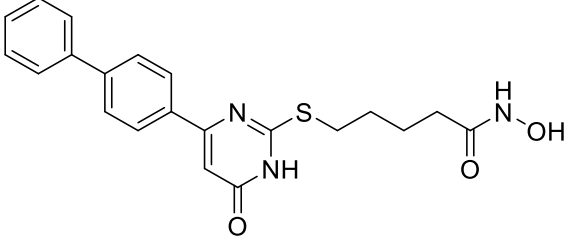
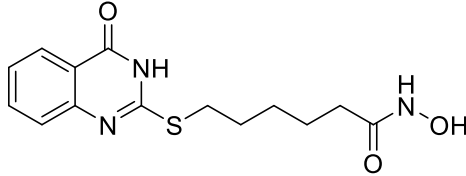


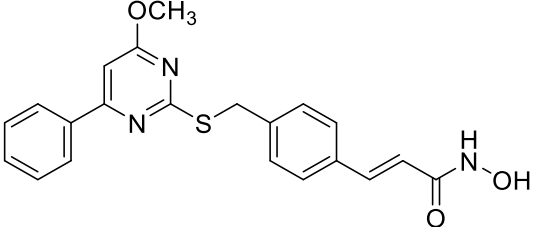
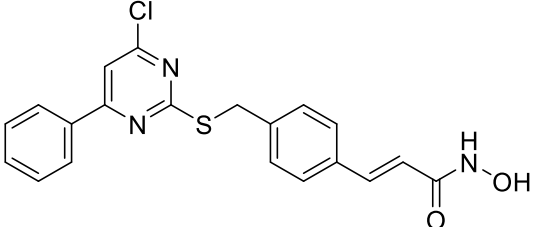
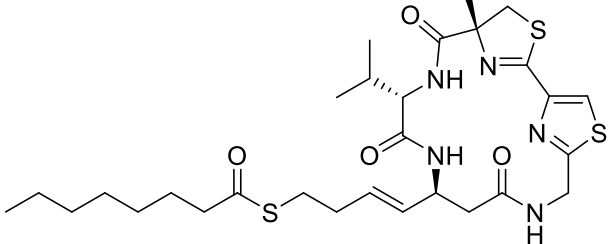
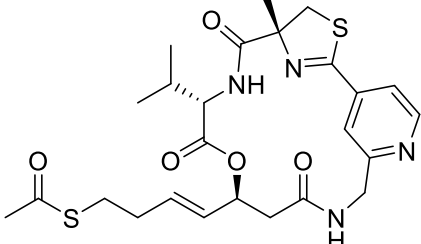
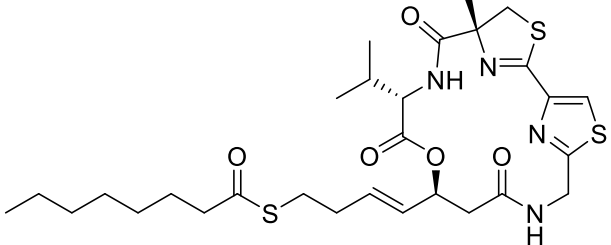
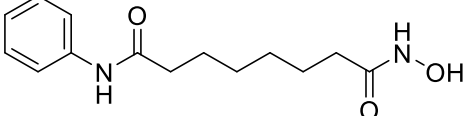
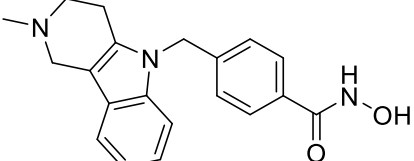
**Supplementary Figure S7. Full unedited gels shown in Figure 5b of manuscript. (top) H3-Lys-9-14. (center)  $\alpha$ -Tubulin-Ac. (bottom)  $\alpha$ -Tubulin**



**Supplementary Table 1. Compounds developed through virtual screening to be isoform-targeted HDAC inhibitors. Related to Figure 2.**

Compounds	Molecular Structure	Molecular Weight	clogP
MC2984		339.43	2.49
SDM141		253.25	0.36
SDM146		252.27	-0.46
MC2727		446.50	2.41
MC2726		446.50	2.41
MC2625		387.43	2.50
MC2664		396.44	3.61
MC2780		408.45	3.16

MC2776		385.42	2.52
MC3031		399.46	2.06
MC3004		373.43	2.07
MC3079		467.54	5.29
MC3050		474.55	3.90
MC1742		395.48	2.64
MC1862		307.37	0.78

<p><b>MC2126</b></p>		<p>393.46</p>	<p>4.10</p>
<p><b>MC2129</b></p>		<p>397.88</p>	<p>3.90</p>
<p><b>JMF-1080</b></p>		<p>621.87</p>	<p>4.84</p>
<p><b>SD-L-256</b></p>		<p>532.67</p>	<p>1.92</p>
<p><b>SD-L-148 (Largarole)</b></p>		<p>622.86</p>	<p>4.93</p>
<p><b>GRM1 (SAHA)</b></p>		<p>264.32</p>	<p>0.99</p>
<p><b>GRM2 (tubastatin)</b></p>		<p>335.41</p>	<p>2.13</p>

<b>GRM3</b> <b>(entinostat)</b>	<p>The chemical structure of GRM3 (entinostat) is shown. It consists of a pyridine ring connected via a methylene group to an ester linkage (-O-C(=O)-NH-). This ester is further connected via a methylene group to a para-substituted benzene ring. This benzene ring is also connected via a methylene group to another ester linkage (-C(=O)-NH-), which is finally connected to a meta-substituted benzene ring bearing an amino group (-NH<sub>2</sub>).</p>	376.42	-0.12
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