

Target Name	Histone deacetylase 1
Target TTD ID	TTDS00095

Target Species	Human
Chemical Type	Substituted biaryl hydroxamates
Mode of Action	Inhibitor
QSAR Model 1	$pIC_{50}(HDAC1) = -1.844 \times I-NHCOCH_2SH + 0.983 \times I-Thiazole + 7.299$ $R^2=0.92, n=23, RMSE=0.322, p<0.0001$
Molecular Descriptor	<p>Access the following web-servers to compute molecular descriptors: <a href="#">MoDel</a> and <a href="#">e-dragon</a></p> <p>Five QSAR equations were developed from the 23 compounds (biphenyl or phenylthiazoles bearing hydroxamates or mercaptoacetamides) against HDACs 1, 2, 8, 10 and 6 incorporating the binary indicators I-NHCOCH<sub>2</sub>SH and I-Thiazole and calculated LogP (ClogP). If the compound is mercaptoacetamide, then I-NHCOCH<sub>2</sub>SH = 1.0; otherwise it is 0. If the compound is phenylthiazole, then I-Thiazole = 1.0; otherwise it is 0.</p>
Reference	Computational Studies on the Histone Deacetylases and the Design of Selective Histone Deacetylase Inhibitors. <i>Current Topics in Medicinal Chemistry</i> , 2009, 9, 241-256

Target Species	Human
Chemical Type	Mercaptoacetamides
Mode of Action	Inhibitor

<b>QSAR Model 1</b>	$pIC_{50}(HDAC1) = -1.844 \times I-NHCOCH_2SH + 0.983 \times I-Thiazole + 7.299$ $R^2=0.92, n=23, RMSE=0.322, p<0.0001$
<b>Molecular Descriptor</b>	<p>Access the following web-servers to compute molecular descriptors: <a href="#">MoDel</a> and <a href="#">e-dragon</a></p> <p>Five QSAR equations were developed from the 23 compounds (biphenyl or phenylthiazoles bearing hydroxamates or mercaptoacetamides) against HDACs 1, 2, 8, 10 and 6 incorporating the binary indicators I-NHCOCH<sub>2</sub>SH and I-Thiazole and calculated LogP (ClogP). If the compound is mercaptoacetamide, then I-NHCOCH<sub>2</sub>SH = 1.0; otherwise it is 0. If the compound is phenylthiazole, then I-Thiazole = 1.0; otherwise it is 0.</p>
<b>Reference</b>	<p>Computational Studies on the Histone Deacetylases and the Design of Selective Histone Deacetylase Inhibitors. <i>Current Topics in Medicinal Chemistry</i>, 2009, 9, 241-256</p>