

Histone deacetylase (HDAC) inhibitors are compounds that modulate the function of histone deacetylase, which are divided into four classes. HDAC determines the acetylation status of histones and controls the regulation of gene expression, cell proliferation, and cell death. Histone deacetylases present lucrative targets and their inhibitors display wide range of epigenetic activities opening the doorway for therapeutic approaches to good number of health conditions, among others, involving central nervous system, cancers, diabetes.

TimTec collection of HDAC inhibitors gathers 1,700 compounds-analogs to known HDAC approved therapies across all classes. These are the structures with the same fragments, scaffolds, and the overall molecular similarity. ActiTarg-H compound pool is available for cherry-picking and is offered in custom formatting if you are interested in a subset. Structural files are available for preview prior to purchase – [please inquire](#) .

As a partial example, the following well-known molecules were included in ActiTarg-H design consideration: PCI-24781, PCI-34051, Erlotinib, CUDC-101, Entinostat, Trichostatin, LAQ 824, Panobinostat, Belinostat, Apicidin, Romidepsin, Vorinostat, Abexinostat, Valproic acid, Trichostatin A, Mocetinostat, Givinostat, Quisinostat, Sulforaphane, Pracinostat, hydroxamic acids, cyclic peptide mimic.

Reference:

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Dokmanovic M, Clarke C, Marks PA (2007). Histone deacetylase inhibitors: overview and perspectives. *Mol. Cancer Res.* 5 (10): 981–9.doi:10.1158/1541-7786.MCR-07-0324.

Noh H, Oh EY, et.al. Histone deacetylase-2 is a key regulator of diabetes- and transforming growth factor-beta1-induced renal injury. *Am J Physiol Renal Physiol.* 2009 Sep;297(3):F729-39. doi: 10.1152/ajprenal.00086.2009

Siavosh Mahboobi, Andreas Sellmer, et.al. 2-Aroylindoles and 2-Aroylbenzofurans with N-Hydroxyacrylamide Substructures as a Novel Series of Rationally Designed Histone Deacetylase Inhibitors. J. Med. Chem., 2007, 50 (18), pp 4405–4418

Alan P. Kozikowski, Subhasish Tapadar, et.al. Use of the Nitrile Oxide Cycloaddition (NOC) Reaction for Molecular Probe Generation: A New Class of Enzyme Selective Histone Deacetylase Inhibitors (HDACIs) Showing Picomolar Activity at HDAC6. J. Med. Chem., 2008, 51 (15), pp 4370–4373

The list is incomplete

Related Products

ActiTarg-H is one of TimTec targeted libraries. Other targeted screening collections of interest are:

[ActiTarg-G](#) GPCR Ligands [ActiTarg-K](#) Kinase Modulators [ActiTarg-P](#) Protease Inhibitors [ActiTarg-S](#) Serpins Inhibitors

[A](#)

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Potassium Channel Modulators

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Nuclear Receptor Ligands

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Central Nervous System Receptors Modulators Library