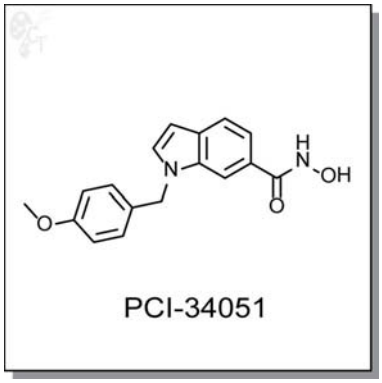
Product Specification Sheet

Product Name: PCI-34051

Catalog Number: C7340



Technical information:

Chemical Formula:	$C_{17}H_{16}N_2O_3$
CAS #:	950762-95-5
Molecular Weight:	296.32
Purity:	> 99%
Appearance:	White solid
Solubility:	Soluble in DMSO up to 100 mM
Chemical Name:	1-(4-methoxybenzyl)-N-hydroxy-1H-indole-6-carboxamide
Storage:	Store solid powder at 4°C desiccated; Store DMSO solution at -20°C.
Shelf Life:	In the unopened package, powder is stable for 1 year and DMSO solution is stable for 6 months under proper storage condition.

Handling:

- To make 10 mM stock solution, add 0.337mL of DMSO for each mg of PCI-34051.
- For DMSO solution, briefly spin the vial at 500 rpm in a 50 mL conical tube to ensure maximum sample recovery.

Biological Activity:

PCI-34051 is a indole-based hydroxamic acid inhibitor of HDAC-8 with an IC50 of 10 nM. It is at least 200-fold selective over other HDAC isoforms with micromolar IC50s of 4, >50, >50, 2.9, and 13 for HDAC-1, HDAC-2, HDAC-3, HDAC-6, and HDAC-10. [1] PCI-34051 induces caspase-dependent apoptosis at low micromolar concentrations in cell lines derived from T-cell lymphomas, including Jurkat and HuT78, but is not cytotoxic to other hematopoietic or solid tumor lines. Unlike other unselective or pan-HDAC inhibitors, PCI-34051 does not induce histone or tubulin acetylation.

The unique specificity of PCI-34051 was used to invalidate HDAC-8 as a potential target for reduction or cholesterol accumulation in lysosomal storage organelles (LSOs) of two NPC1 mutant

Reference:

1. Balasubramanian et al., A novel histone deacetylase 8 (HDAC8)-specific inhibitor PCI-34051 induces apoptosis in T-cell lymphomas, Leukemia, 2008, 22(5), 1026-1034. Pubmed ID: 18256683

2. Pipalia et al., Histone deacetylase inhibitor treatment dramatically reduces cholesterol accumulation in Niemann-Pick type C1 mutant human fibroblasts. Proc. Nat. Acad. Sci. 2011, 108(14), 5620-5625. Pubmed ID: 21436030

To reorder: http://www.cellagentech.com/PCI-34051/

For Technical Support: technical@cellagentech.com

Chemicals are sold for research use only, not for clinical or diagnostic use.