

## 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%

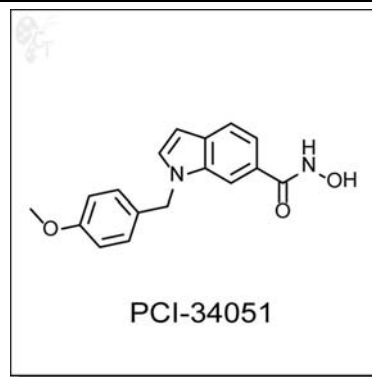
Appearance: White solid

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 IC<sub>50</sub> of 10 nM. It is at least 200-fold selective over other HDAC isoforms with micromolar IC<sub>50</sub>s 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](mailto:technical@cellagentech.com)

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