

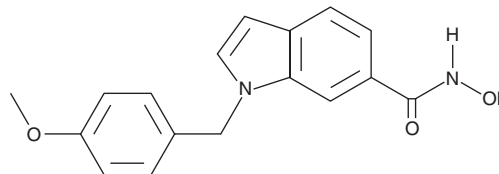
PRODUCT INFORMATION



PCI 34051

Item No. 10444

CAS Registry No.: 950762-95-5
Formal Name: N-hydroxy-1-[(4-methoxyphenyl)methyl]-1H-indole-6-carboxamide
MF: C₁₇H₁₆N₂O₃
FW: 296.3
Purity: ≥95%
UV/Vis.: λ_{max}: 230, 285 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

PCI 34051 is supplied as a crystalline solid. A stock solution may be made by dissolving the PCI 34051 in the solvent of choice, which should be purged with an inert gas. PCI 34051 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of PCI 34051 in these solvents is approximately 0.3, 50, and 5 mg/ml, respectively.

PCI 34051 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, PCI 34051 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. PCI 34051 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

PCI 34051 is a potent histone deacetylase (HDAC) 8 inhibitor (IC₅₀ = 0.01 μM) with >200-fold selectivity over HDAC isoforms 1, 2, 3, 6, and 10 (IC₅₀s = 4, >50, >50, 2.9, and 13 μM, respectively).¹ PCI 34051 induces caspase-dependent apoptosis in cell lines derived from T-cell lymphomas or leukemias (GI₅₀s = 2.4 - 4 μM), but not in other hematopoietic or solid tumor lines.¹ This compound has also been used to support a critical role for HDAC8 in the coordinated deacetylation of the core cohesion component SMC3 during mitosis.²

References

1. Balasubramanian, S., Ramos, J., Luo, W., *et al.* A novel histone deacetylase 8 (HDAC8)-specific inhibitor PCI-34051 induces apoptosis in T-cell lymphomas. *Leukemia* **22**(5), 1026-1034 (2008).
2. Deardorff, M.A., Bando, M., Nakato, R., *et al.* HDAC8 mutations in Cornelia de Lange syndrome affect the cohesin acetylation cycle. *Nature* **489**(7415), 313-317 (2012).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM