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Produktinformation

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- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

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siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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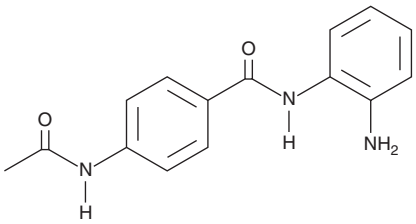
PRODUCT INFORMATION

CI-994

Item No. 12084

CAS Registry No.:	112522-64-2
Formal Name:	4-(acetylamino)-N-(2-aminophenyl)-benzamide
Synonyms:	N-Acetyldinaline, Goe 5549, PD 123654, Tacedinaline
MF:	$C_{15}H_{15}N_3O_2$
FW:	269.3
Purity:	≥98%
UV/Vis.:	λ_{max}: 271 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥2 years



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

Laboratory Procedures

CI-994 is supplied as a crystalline solid. A stock solution may be made by dissolving the CI-994 in the solvent of choice, which should be purged with an inert gas. CI-994 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of CI-994 in these solvents is approximately 5 and 1 mg/ml, respectively.

CI-994 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, CI-994 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. CI-994 has a solubility of approximately 0.5 mg/ml in a 1:5 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

CI-994 is an inhibitor of histone deacetylase 1 (HDAC1), HDAC2, and HDAC3 (IC_{50}s = 0.9, 0.9, and 1.2 µM, respectively).[1] It is selective for these HDACs over HDAC8 (IC_{50} = >20 µM). CI-994 inhibits the growth of HCT116 colon cancer cells but not human mammary epithelial cells (HMECs; IC_{50}s = 4 and >50 µM, respectively). *In vivo*, CI-994 (11.85 mg/kg twice per day) increases survival time in a rat model of 9,10-dimethyl-1,2-benzathracene-induced leukemia.[2] It reduces tumor growth in an LNCaP mouse xenograft model, as well as in a Panc02 murine pancreatic cancer model.[3] CI-994 (1, 10, and 30 mg/kg) reduces neutrophil accumulation, inflammatory cytokine expression, and neuronal loss in a mouse model of spinal cord injury.[4]

References

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2. El-Beltagi, H.M., Martens, A.C.M., Lelieveld, P., *et al.* Acetyldinaline: A new oral cytostatic drug with impressive differential activity against leukemic cells and normal stem cells—preclinical studies in a relevant rat model for human acute myelocytic leukemia. *Cancer Res.* **53(13)**, 3008-3014 (1993).
3. LoRusso, P.M., Demchik, L., Foster, B., *et al.* Preclinical antitumor activity of CI-994. *Invest. New Drugs* **14(4)**, 349-356 (1996).
4. Zhang, S., Fujita, Y., Matsuzaki, R., *et al.* Class I histone deacetylase (HDAC) inhibitor CI-994 promotes functional recovery following spinal cord injury. *Cell Death Dis.* **9(5)**, 460 (2018).

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