



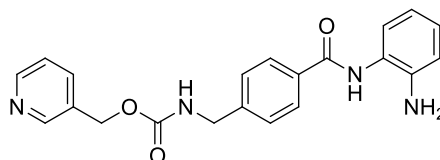
Catalog # 10-2131

MS-275

CAS# 209783-80-2

Entinostat

Lot # X105613



Potent HDAC inhibitor. Selective for HDAC1 (IC₅₀ = 300 nM) over HDAC3 (IC₅₀ = 8 μM) and HDAC8 (IC₅₀ > 100 μM).¹ In vivo, MS-275 has been shown to inhibit tumor growth via induction of the tumor suppressors p21WAF1/CIP1 and gelsolin² and to block cell proliferation in a variety of cancer cell lines^{3,4}. The compound has also shown significant anti-rheumatic activity in rat and mouse arthritis models.⁵

- 1) Hu *et al.* (2003), *Identification of novel isoform-selective inhibitors within class 1 histone deacetylases*; J. Pharmacol. Exp. Ther., **307** 720
- 2) Saito *et al.* (1999), *A synthetic inhibitor of histone deacetylase, MS-27-275, with marked in vivo antitumor activity against human tumors*; Proc. Natl. Acad. Sci. USA, **96** 4592
- 3) Eyupoglu *et al.* (2006), *Experimental therapy of malignant gliomas using the inhibitor of histone deacetylase MS-275*; Mol. Cancer Ther., **5** 1248
- 4) Lee *et al.* (2001), *MS-275, a histone deacetylase inhibitor, selectively induces transforming growth factor beta type II receptor expression in human breast cancer cells*; J. Pharmacol. Exp. Ther., **307** 720
- 5) Lin *et al.* (2007), *Anti-rheumatic activities of histone deacetylase (HDAC) inhibitors in vivo in collagen-induced arthritis in rodents*; Br. J. Pharmacol., **150** 862

PHYSICAL DATA

Molecular Weight:	376.42
Molecular Formula:	C ₂₁ H ₂₀ N ₄ O ₃
Purity:	98% by TLC
	NMR: (Conforms)
Solubility:	DMSO (up to 25 mg/ml with warming)
Physical Description:	Pale yellow solid
Storage and Stability:	Store as supplied desiccated at -20°C for up to 1 year from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 1 week.

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