

MS-275 (Entinostat)

Catalog #: 27011

Lot #: 150715

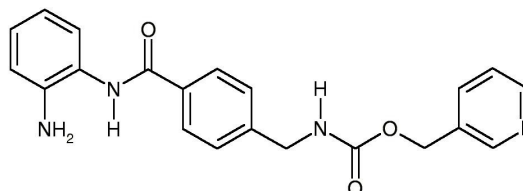
Size: 25 mg

Structure:

CAS Registry #: 209783-80-2

Purity: ≥99%

Chemical Formula: C₂₁H₂₀N₄O₃



Molecular Weight: 376.41

Description: MS-275, also known as Entinostat, is an inhibitor of histone deacetylases (HDACs) and preferentially inhibits HDAC1 over HDAC3. It does not inhibit HDAC8 (IC₅₀ > 100 μM). It induces cyclin-dependent kinase inhibitor 1A (p21/CIP1/WAF1), slowing cell growth, differentiation, and tumor development *in vivo*. Recent studies suggest that MS-275 may be particularly useful as an antineoplastic agent when combined with other drugs like adriamycin, inhibitors of PARPs, or inhibitors of Hsp90.

Appearance: White to off-white crystalline solid

Solubility: Soluble in DMSO at 25 mg/ml with slight warming. MS-275 is poorly soluble in ethanol and water.

Biological Activity: MS-275 inhibits HDAC1 with an IC₅₀ of 300 nM and HDAC3 with an IC₅₀ value of 8 μM.

Storage/Stability: Store at or below -20 °C.

Quality Control: The purity was determined by HPLC analysis.

References:

1. Hu., E. *et al.*, *J. Pharmacol. Exp. Ther.* 2003; **307**: 720-728.
2. Saito, A., *et al.*, *Proc. Natl. Acad. Sci. USA* 1999; **96**: 4592-4597.
3. Jaboin, J., *et al.*, *Cancer Res.* 2002; **62**: 6108-6115.
4. Xu, J. *et al.*, *Cancer Res.* 2008; (**68**)**16**: 6718 – 6726.
5. Gaymes, T.J., *et al.*, *Haematologica* 2009; **94**: 638-646.