

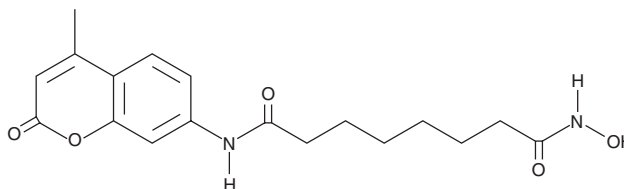
PRODUCT INFORMATION



coumarin-SAHA

Item No. 10671

CAS Registry No.: 1260635-77-5
Formal Name: N1-hydroxy-N8-(4-methyl-2-oxo-2H-chromen-7-yl)-octanediamide
Synonym: coumarin-Suberoylanilide Hydroxamic Acid
MF: C₁₈H₂₂N₂O₅
FW: 346.4
Purity: ≥98%
UV/Vis.: λ_{max}: 229, 328 nm
Ex./Em. Max: 325/400 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

coumarin-suberoylanilide hydroxamic acid (c-SAHA) is supplied as a crystalline solid. A stock solution may be made by dissolving the c-SAHA in the solvent of choice. c-SAHA is soluble in organic solvents such as DMSO and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of c-SAHA in these solvents is approximately 5 mg/ml.

c-SAHA is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, c-SAHA should first be dissolved in DMF and then diluted with the aqueous buffer of choice. c-SAHA has a solubility of approximately 0.1 mg/ml in a 1:9 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

SAHA is a class I and class II histone deacetylase (HDAC) inhibitor that binds directly to the catalytic site of the enzyme thereby blocking substrate access.¹ c-SAHA is a SAHA derivative where the anilino 'cap' group is replaced by 7-amino-4-methylcoumarin to produce a fluorescent probe that competitively binds HDACs when tested against other HDAC inhibitors.² The fluorescence excitation and emission maxima of free c-SAHA is 325 and 400 nm, respectively and is quenched by 50% when bound to HDAC8.² This probe can be used to determine binding affinities and dissociation off-rates of HDAC enzyme-inhibitor complexes and is well-suited for high-throughput screening

References

1. Marks, P.A. and Breslow, R. Dimethyl sulfoxide to vorinostat: Development of this histone deacetylase inhibitor as an anticancer drug. *Nat. Biotech.* **25(1)**, 84-90 (2007).
2. Singh, R.K., Mandal, T., Balasubramanian, N., *et al.* Coumarin-suberoylanilide hydroxamic acid as a fluorescent probe for determining binding affinities and off-rates of histone deacetylase inhibitors. *Anal. Biochem.* **408(2)**, 309-315 (2011).

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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