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: C_{18}H_{22}N_{2}O_{5}
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