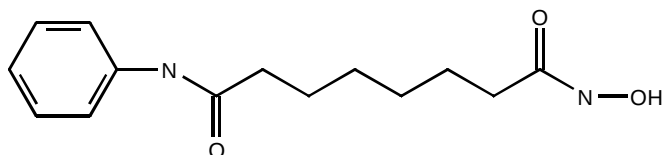


SAHA**Product Information**

Product Number **S 8690**
Storage at Room Temperature

Synonym: Suberoylanilide hydroxamic acid

**Product Description**

Appearance: White Powder
Formula: $C_{14}H_{20}N_2O_3$
Formula Weight: 264.3
Purity: $\geq 98\%$ by HPLC.

SAHA is a potent, selective, cell permeable inhibitor of histone deacetylase (HDAC) 1 and 3. It is an antiangiogenic agent, which functions by altering vascular endothelial growth factor signaling. It also induces cell cycle arrest and apoptosis in human breast cancer cells.

Preparation Instructions

Soluble in DMSO at 19 mg/ml.

Precautions and Disclaimer

This product is for laboratory research use only. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

Store at room temperature. Store DMSO solutions at $-20\text{ }^{\circ}\text{C}$ for up to 3 months.

Note: Unstable when in contact with metal, do not use metal spatula when weighing or transferring.

Patent: US Patent No. 5,369,108

References

1. Richon, V.M., et al., Second generation hybrid polar compounds are potent inducers of transformed cell differentiation. *Proc. Natl. Acad. Sci., USA*, **93**, 5705-5708 (1996).
2. Richon, V.M., et al., A class of hybrid polar inducers of transformed cell differentiation inhibits histone deacetylases. *Proc. Natl. Acad. Sci., USA*, **95**, 3003-3007 (1998).
3. Richon V.M., et al., Histone deacetylase inhibitors: development of suberoylanilide hydroxamic acid (SAHA) for the treatment of cancers. *Blood Cells Mol. Dis.*, **27**, 260-4 (2001).
4. Vrana, J.A., et al., Induction of apoptosis in U937 human leukemia cells by suberoylanilide hydroxamic acid (SAHA) proceeds through pathways that are regulated by Bcl-2/Bcl-XL, c-Jun, and p21CIP1, but independent of p53. *Oncogene*, **18**, 7016-7025 (1999).
5. Huang, L., et al., Activation of the p21WAF1/CIP1 promoter independent of p53 by the histone deacetylase inhibitor suberoylanilide hydroxamic acid (SAHA) through the Sp1 sites. *Oncogene*, **19**, 5712-5719 (2000).
6. Ruefli, A.A., et al., The histone deacetylase inhibitor and chemotherapeutic agent suberoylanilide hydroxamic acid (SAHA) induces a cell-death pathway characterized by cleavage of Bid and production of reactive oxygen species. *Proc. Natl. Acad. Sci., USA*, **98**, 10833-8 (2001).
7. Deroanne, C.F., et al., Histone deacetylase inhibitors as anti-angiogenic agents altering vascular endothelial growth factor signaling. *Oncogene*, **21**, 427-36 (2002).

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