

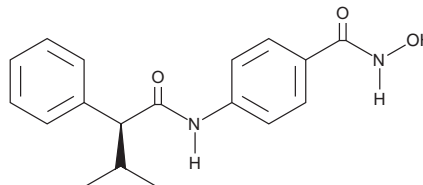
PRODUCT INFORMATION



(S)-HDAC-42

Item No. 13277

CAS Registry No.: 935881-37-1
Formal Name: N-[4-[(hydroxyamino)carbonyl]phenyl]-αS-(1-methylethyl)-benzeneacetamide
Synonyms: AR42, OSU-HDAC 42
MF: C₁₈H₂₀N₂O₃
FW: 312.4
Purity: ≥95%
UV/Vis.: λ_{max}: 206, 272 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

(S)-HDAC-42 is supplied as a crystalline solid. A stock solution may be made by dissolving the (S)-HDAC-42 in the solvent of choice, which should be purged with an inert gas. (S)-HDAC-42 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of (S)-HDAC-42 in ethanol is approximately 20 mg/ml and approximately 30 mg/ml in DMSO and DMF.

(S)-HDAC-42 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, (S)-HDAC-42 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. (S)-HDAC-42 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

(S)-HDAC-42 is a histone deacetylase (HDAC) inhibitor (IC₅₀ = 16 nM).¹ It increases acetylation of histone H3 in DU145 prostate cancer cells when used at concentrations ranging from 0.1 to 2.5 μM. (S)-HDAC-42 decreases viability of DU145 cells (IC₅₀ = 0.11 μM). It induces cell cycle arrest at the G₁ phase in A2780 ovarian cancer cells when used at a concentration of 0.5 μM.² (S)-HDAC-42 (25 mg/kg per day or 50 mg/kg every other day) decreases tumor volume in a PC3 prostate cancer mouse xenograft model.³

References

1. Lu, Q., Wang, D.S., Chen, C.S., *et al.* Structure-based optimization of phenylbutyrate-derived histone deacetylase inhibitors. *J. Med. Chem.* **48**(17), 5530-5535 (2005).
2. Yang, Y.-T., Balch, C., Kulp, S.K., *et al.* A rationally designed histone deacetylase inhibitor with distinct antitumor activity against ovarian cancer. *Neoplasia* **11**(6), 552-563 (2009).
3. Kulp, S.K., Chen, C.S., Wang, D.S., *et al.* Antitumor effects of a novel phenylbutyrate-based histone deacetylase inhibitor, (S)-HDAC-42, in prostate cancer. *Clin. Cancer Res.* **12**(17), 5199-5206 (2006).

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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