

PRODUCT INFORMATION

Panobinostat-d₄ (hydrochloride)

Item No. 28501

Formal Name: (2E)-N-hydroxy-3-[4-[[[2-(2-methyl-1H-indol-3-yl-4,5,6,7-d₄)ethyl]amino]methyl]phenyl]-2-propenamide, monohydrochloride

Synonym: LBH-589-d₄

MF: C₂₁H₁₉D₄N₃O₂ • HCl

FW: 389.9

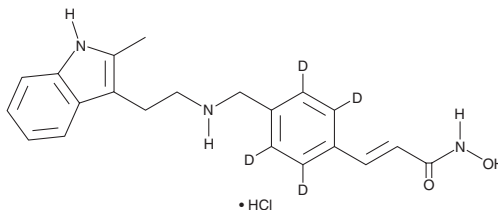
Chemical Purity: ≥98% (Panobinostat)

Deuterium Incorporation: ≥99% deuterated forms (d₁-d₄); ≤1% d₀

Supplied as: A 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

Panobinostat-d₄ (hydrochloride) is intended for use as an internal standard for the quantification of panobinostat (Item No. 13280) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

Panobinostat-d₄ (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the panobinostat-d₄ (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Panobinostat-d₄ (hydrochloride) is soluble in methanol and DMSO.

Description

Panobinostat is a pan-inhibitor of histone deacetylases (HDACs; K_is = 0.6-31 nM for HDAC1-11).¹ It inhibits growth in a panel of 37 human or mouse lung cancer cell lines, including small cell lung cancer (SCLC), non-small cell lung cancer (NSCLC), and mesothelioma cancer cells (IC₅₀s = 4-175, 5-310, and 5-470 nM, respectively), but not NCI H661 mouse NSCLC cells (IC₅₀ = >800 nM).² Panobinostat (20 mg/kg, i.p.) induces tumor regression in BK-T and RG-1 SCLC mouse xenograft models.

References

- Wang, H., Yu, N., Chen, D., *et al.* Discovery of (2E)-3-[2-butyl-1-[2-diethylamino)ethyl]-1H-benzamidazol-5-yl]-N-hydroxyacrylamide (SB939), an orally active histone deacetylase inhibitor with a superior preclinical profile. *J. Med. Chem.* **54**(13), 4694-4720 (2011).
- Crisanti, M.C., Wallace, A.F., Kapoor, V., *et al.* The HDAC inhibitor panobinostat (LBH589) inhibits mesothelioma and lung cancer cells *in vitro* and *in vivo* with particular efficacy for small cell lung cancer. *Mol. Cancer Ther.* **8**(8), 2221-2231 (2009).

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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