Product Specification Sheet

Product Name: LBH589 (Panobinostat)
Catalog Number: C5245-5 (powder)
C5245-5s (10mM in DMSO)

Package Size: 5 mg

Technical information:
Chemical Formula: C_{21}H_{23}N_{3}O_{2}
CAS #: 404950-80-7
Molecular Weight: 349.43
Purity: >98%
Formulation: white solid
Solubility: Soluble in DMSO up to 50 mM
Chemical Name: (2E)-N-hydroxy-3-[4-([2-(2-methyl-1H-indol-3-yl)ethyl]amino)methyl]phenyl)acrylamide

Storage: Store solid powder at 4°C desiccated; Store DMSO solution at -20°C.

Handling:
• For C5245-5 (powder), add 1.431 mL of DMSO to make 10 mM solution.
• For C5245-5s, briefly spin the vial at 500 rpm in a 50 mL conical tube to ensure maximum sample recovery.

Biological Activity:
LBH589, a hydroxamate analog, is a broad-spectrum HDAC inhibitor. It has been shown to increase acetylation of core histones (H3 and H4) and nonhistone proteins (alpha-tubulin, HSP90), leading to the modulation of gene expression (p21, FOXO3A, GADD45A, aromatase, etc) and protein activity involved in cell growth and survival pathways\(^1-4\).

LBH589 induces apoptosis in MOLT-4 and Reh cells with IC50 between 5 to 20 nM\(^1\). In lung cancer and mesothelioma animal models, LBH589 markedly decreased tumor growth by 62% when compared with the vehicle control\(^5\). The anti-tumor activity of LBH589 has also been demonstrated in many other cancer cell lines, including multiple myeloma, NSCLC and castrate-resistant prostate cancer cell lines. LBH589 is under clinical trials to evaluate its effects in conjunction with chemotherapy and/or targeted therapy in multiple cancer types.

Reference:
3. George, P., et al. “Combination of the histone deacetylase inhibitor LBH589 and the hsp90 inhibitor 17-AAG is highly active against human


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