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Product Information

HDAC Inhibitor Set II

Catalog Number **EPI009**

TECHNICAL BULLETIN

Product Description

A convenient set of seven individual HDAC (Histone Deacetylase) inhibitors as shown in the following table:

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices

Product	Cat. No.	Size
CI-994	EPI009A	10 mg
Panobinostat (LBH589)	EPI009B	1 mg
SAHA	EPI009C	1 mg
SBHA	EPI009D	50 mg
Scriptaid	EPI009E	1 mg
Trichostatin A	EPI009F	1 mg
Tubacin	EPI009G	250 µg

Product	Solubility	Applications
CI-994	DMSO (60 mg/ml)	Cell-permeable. A histone deacetylase (HDAC) inhibitor: K_i values are 0.41, 0.75, >100 and >100 µM for HDAC1, HDAC3, HDAC6 and HDAC8, respectively. Displays significant antitumor activity *in vitro* and *in vivo* against a broad spectrum of murine and human tumor models.
Panobinostat (LBH589)	DMSO	Highly potent inhibitor of both histone deacetylase 1 (HDAC1) activity and tumour cell proliferation in vitro. The IC_{50} values of HDAC isozymes HDAC1-IP Ac-H4, HDAC8, MALunselective, B61HDAC1 and B12HDAC6 are 0.23±0.06, 283±29, 75±4, 47±5 and 89±12 nM, respectively. And to A2780 proliferation, IC_{50} value is 4.6±1.8 nM.
SAHA	Soluble in DMSO (60 mg/ml) or EtOH (2 mg/ml)	Potent, reversible inhibitor of histone deacetylase 1 (HDAC1) and 3 (HDAC3). Induces cell growth arrest at both G1 and G2 phases. Induces apoptosis.
SBHA	H_2O (100 mM) or DMSO (100 mM)	Competitive histone deacetylase (HDAC) inhibitor that has been shown to inhibit HDAC1 (IC_{50} = 0.25 µM) and HDAC3 (IC_{50} = 0.30 µM). SBHA causes cell differentiation, cell cycle arrest, or apoptosis. SBHA also enhances cytotoxicity induced by Oxaliplatin in the colorectal cancer cell lines.
Scriptaid	DMSO (100 mM)	A relatively non-toxic Inhibitor of histone deacetylase (HDAC). Facilitates transcriptional activation (TGF-β/Smad4) in both stable and transient receptor assays in a concentration-dependent manner. At ~2 µg/ml (6-8 µM) concentrations, results in a greater than 100-fold increase in histone acetylation in PANC-1 cells.

Product	Solubility	Applications
Trichostatin A	Soluble in DMSO or ethanol	Potent, reversible inhibitor of histone deacetylase. Mediates the activation of O^6-methylguanine-DNA methyltransferase (MGMT). May be involved in cell cycle progression of several cell types, induces cell growth arrest at both G1 and G2/M phases. In some cases induces apoptosis.
Tubacin	DMSO (~10mg/ml)	Tubacin (Tubulin acetylation inducer) is a highly potent, selective, reversible, and cell-permeable inhibitor of histone deacetylase 6 (HDAC6, IC_{50} = 4 nM). Displays 1000-fold more selectivity for HDAC6 over other HDACs. It inhibits α-tubulin deacetylation in mammalian cells. Unlike trichostatin A (TSA), which is a broad spectrum HDAC inhibitor, tubacin is specific for the tubulin deacetylase activity of HDAC6. Tubacin causes increased acetylation of α-tubulin, accumulation of polyubiquitinated proteins, and apoptosis. It does not affect global histone deacetylation, gene-expression profiling, or cell cycle progression mediated α-tubulin deacetylation in mammalian cells.

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