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Product Information

HDAC Inhibitor Set I

Storage Temperature -20 °C

Catalog Number EPI008

Technical Bulletin

Product Description

A convenient set of six selected 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
Apicidin	EPI008A	1 mg
M344	EPI008B	1 mg
Sodium 4-phenylbutuyrate	EPI008C	100 mg
Splitomycin	EPI008D	5 mg
Trichostatin A	EPI008E	1 mg
Valproic Acid, Sodium Salt	EPI008F	200 mg

	Solubility	Applications
Apicidin	Soluble in DMSO (50 mg/ml) or ethanol.	A potent, cell permeable inhibitor of histone deacetylase (IC_{50} = 700 pM for parasitic histone deacetylase). Inhibits HeLa cell proliferation (IC_{50} = 50-100 nM) and induces the transcriptional activation of p21 (WAF1) in a reversible manner. Also prevents H-*ras*-induced invasive phenotype of MCF-10A cells possibly by down regulating MMP-2 in a reversible manner.
M344	Soluble in DMSO (1 mg/ml)	An amide analog of Trichostatin A that potently Inhibits histone deacetylases (IC_{50} = 40 nM for rat liver HDAC and IC_{50} = 100 nM for maize HDAC). Induces differentiation and inhibits proliferation (~2 µM) of murine erythroleukemia cells.
Sodium 4-phenylbutuyrate	Soluble in water	Inhibitor of histone deacetylase (HDAC). Anti-neoplastic agent and transcriptional regulator. Also acts as an inducer of tumor cytostasis and differentiation.
Splitomycin	Soluble in DMSO (100 mg/ml)	Potent inhibitor of yeast NAD+ dependent histone deacetylase Sir2p (IC_{50}= 60 µM). Sensitizes mammalian cells to a variety of DNA-damaging agents by abrogating Sir2p activity on p53. Acts by either altering or blocking access to the acetylated histone binding pocket.
Trichostatin A	Soluble in DMSO or ethanol	Potent, reversible inhibitor of histone deacetylase. Mediates the activation of O6- 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.
Valproic acid sodium salt	Water (100 mM)	A cell-permeable histone deacetylase 1 (HDAC1) inhibitor (IC_{50} = 400 µM) that exhibits anticancer, anti-inflammatory and neuroprotective properties. Recently it has been reported that Valproic acid enables reprogramming of primary human fibroblasts with only two factors, Oct4 and Sox2, without the need for the oncogenes c-Myc or Klf4.

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