Trichostatin A

(Catalog No. M45000)

Alternative Names
TSA, [R-(E,E)]-7-[4-(Dimethylamino)phenyl]-N-hydroxy-4,6-dimethyl-7-oxo-2,4-heptadienamide

Description
Trichostatin A is a potent and non-competitive reversible inhibitor of histone deacetylases (HDAC) with a Ki of 3.4 nM. In HeLa cells, TSA blocked cell cycle progression at G1 and induced a 12-fold increase in intracellular levels of gelsolin. In cells latently infected with HIV-1, TSA induced the transcriptional activation of the HIV-1 promoter, which resulted in a marked increase in virus production. In NIH 3T3 cells, TSA induced reversion of oncogenic ras-transformed cells to a normal morphology. In Jurkat cells, TSA inhibited IL-2 gene expression and displayed immunosuppressive activity in a mouse model. Induces increased acetylation of GATA4, a cardiac-specific transcription factor and increases cardiac muscle cell differentiation. In normal rat fibroblasts, induced Friend cell differentiation and inhibited the G1 and G2 phases of the cell cycle. Trichostatin A is a useful tool for induction of hyperacetylation of cellular histones and for further elucidation of their role in gene expression. A glucoside analog of Trichostatin A is also offered as Trichostatin C.

CAS Number
58880-19-6

Chemical Formula
$C_{17}H_{22}N_2O_3$

Molecular Weight
302.4

Size
1 mg

Purity
99%

Solubility
Soluble in DMSO, DMF and ethanol

Storage Temp
-20°C

Ordering Information:

Products	Size	Cat. No.
Trichostatin A	1 mg	M45000 -1

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