Trichostatin A

HDAC inhibitor

Trichostatin A (TSA) is a potent and reversible inhibitor of histone deacetylases. 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 (IC_{50}=73nM) and displayed immunosuppressive activity in a mouse model.

Induces increased acetylation of GATA4, a cardiac-specific transcription factor and increases cardiac muscle cell differentiation. Trichostatin A is a useful tool for induction of hyperacetylation of cellular histones and for further elucidation of their role in gene expression. Induces cell growth arrest at both G1 and G2/M phases. may induce apoptosis in some cases. It can induce accelerated dedifferentiation of primordial germ cells into embryonic germ cells.

Citations: 31 View Online »

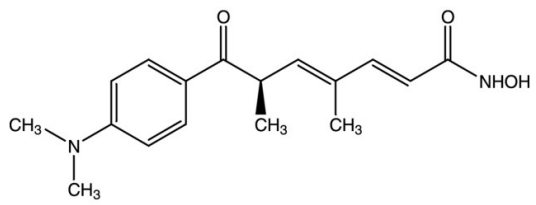
Ordering Information

Order Online »

BML-GR309-0001	1mg
BML-GR309-0005	5mg

Manuals, SDS & CofA

View Online »


O
O
NHOH
CH3
CH3
CH3
N
CH3

Handling & Storage

Use/Stability	As indicated on product label or CoA when stored as recommended. Store, as supplied, at -20°C for up to 1 year. Store solutions at -20°C for up to 3 months.
Long Term Storage	-20°C
Shipping	Ambient Temperature

Regulatory Status

RUO - Research Use Only

Product Details

Alternative Name	[R-(E,E)]-7-[4-(Dimethylamino)phenyl]-N-hydroxy-4,6-dimethyl-7-oxo-2,4-heptadienamide
Appearance	Off-white to beige solid.
CAS	58880-19-6
Couple Target	HDAC
Couple Type	Inhibitor
Formula	$C_{17}H_{22}N_2O_3$
MW	302.4
MeltingPoint	150°C
Purity	≥98% (HPLC)
Solubility	Soluble in DMSO, dimethyl formamide, acetonitrile, methanol or 100% ethanol
Source	Isolated from *Streptomyces platensis*.

Last modified: May 29, 2024

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