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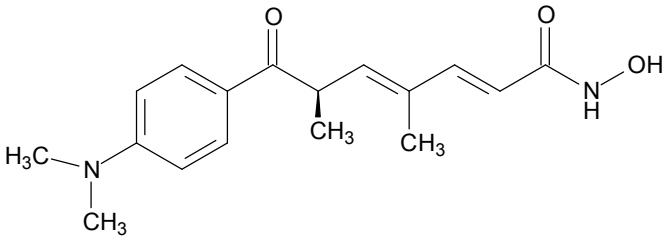
ProductInformation

Trichostatin A, Ready Made Solution
from *Streptomyces sp.*

Catalog Number **T1952**
Storage Temperature –20 °C

CAS RN 58880-19-6
Synonyms: TSA; *R*-(*E*,*E*)]-7-[4-(Dimethylamino)phenyl]-*N*-hydroxy-4,6-dimethyl-7-oxo-2,4-heptadienamide



Product Description

Molecular formula: $C_{17}H_{22}N_2O_3$
Molecular weight: 302.37

Trichostatin A (TSA) is a *Streptomyces* metabolite, which specifically inhibits mammalian histone deacetylase at nanomolar concentrations and causes accumulation of highly acetylated histone molecules in mammalian cells. For that reason, TSA has been used as a tool to study the consequences of histone acetylation *in vivo*.[1] TSA induces cell differentiation, cell cycle arrest, reversal of transformed cells morphology, and apoptosis and is able to modulate transcription.[2,3] TSA was used to establish a new cloning technique, which increases the success rates for mouse cloning.[4]

Reagent

Trichostatin A, Ready Made Solution is supplied as a 5 mM 0.2 µm filtered solution in dimethyl sulfoxide (DMSO).

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.

Storage/Stability

Store sealed at –20 °C. Under these conditions the product is stable for at least 1 year.

References

1. Minucci, S., et al., A histone deacetylase inhibitor potentiates retinoid receptor action in embryonal carcinoma cells. *Proc. Natl. Acad. Sci. USA*, **94**, 11295-11300 (1997).
2. Marks, P.A., et al., Histone deacetylase inhibitors: inducers of differentiation or apoptosis of transformed cells. *J. Natl. Cancer Inst.*, **92**, 1210-1216 (2000).
3. Furumai, R., et al., Potent histone deacetylase inhibitors built from trichostatin A and cyclic tetrapeptide antibiotics including trapoxin. *Proc. Natl. Acad. Sci. USA*, **98**, 87-92 (2001).
4. Kishigami, S., et al., Successful mouse cloning of an outbred strain by trichostatin A treatment after somatic nuclear transfer. *J. Reprod. Dev.,* **53**, 165-170 (2007).

KAA,RS,EB,MAM 10/07-1

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