

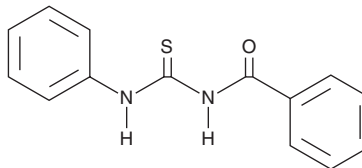
PRODUCT INFORMATION



TM-2-51

Item No. 45129

CAS Registry No.: 4921-82-8
Formal Name: N-[(phenylamino)thioxomethyl]-benzamide
Synonym: NSC 5817
MF: C₁₄H₁₂N₂OS
FW: 256.3
Purity: ≥95%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

TM-2-51 is supplied as a crystalline solid. A stock solution may be made by dissolving the TM-2-51 in the solvent of choice, which should be purged with an inert gas. TM-2-51 is sparingly soluble (1-10 mg/ml) in DMSO.

Description

TM-2-51 is an activator of histone deacetylase 8 (HDAC8).^{1,2} It inhibits the growth of SH-SY5Y neuroblastoma cells expressing wild-type p53 when used at concentrations of 10, 40, and 80 μM.² TM-2-51 (80 μM) induces apoptosis in the same cells but not in BE(2)-C neuroblastoma cells expressing mutant p53. TM-2-51 inhibits growth and migration of U2OS and 143B osteosarcoma cells *in vitro* and inhibits tumor growth in a 143B mouse xenograft model when administered at a dose of 10 mg/kg.³

References

1. Singh, R.K., Mandal, T., Balsubramanian, N., *et al.* Histone deacetylase activators: N-acetylthioureas serve as highly potent and isozyme selective activators for human histone deacetylase-8 on a fluorescent substrate. *Bioorg. Med. Chem. Lett.* **21(19)**, 5920-5923 (2011).
2. Singh, R.K., Cho, K., Padi, S.K., *et al.* Mechanism of N-acylthiourea-mediated activation of human histone deacetylase 8 (HDAC8) at molecular and cellular levels. *J. Biol. Chem.* **290(10)**, 6607-6619 (2015).
3. Wang, L., Bai, X., Zhang, X., *et al.* Activation of HDAC8 can suppress the proliferation of osteosarcoma cells via TP53 and STAT3/ERK signaling pathways. *Ann. Clin. Lab. Sci.* **53(6)**, 920-930 (2023).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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