PRODUCT INFORMATION



Remodelin

Item No. 17346

CAS Registry No.: 949912-58-7

Formal Name: 4-[2-(2-cyclopentylidenehydrazinyl)-

4-thiazolyl]-benzonitrile

MF: $C_{15}H_{14}N_4S$ FW: 282.4 **Purity:** ≥95% λ_{max} : 280 nm A crystalline solid UV/Vis.: Supplied as:

Storage: -20°C Stability: ≥4 years

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

Laboratory Procedures

Remodelin is supplied as a crystalline solid. A stock solution may be made by dissolving the remodelin in the solvent of choice, which should be purged with an inert gas. Remodelin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of remodelin in these solvents is approximately 1, 15, and 30 mg/ml, respectively.

Description

Progeria is a genetic disorder that results in the appearance of premature aging. Genetically, progeria is characterized by a mutation in lamin A, which results in misshapen cell nuclei and DNA damage. Remodelin is a 2-thiazolylhydrazone derivative that, at 10 μM, improves nuclear architecture, chromatin organization, and survival of both cells lacking lamin A and cells from patients with progeria. Remodelin is an inhibitor of N-acetyltransferase 10 (NAT10), which acetylates both histones and microtubules. Mutation of NAT10 mimics the effects of remodelin on nuclear morphology, suggesting that these effects of remodelin require NAT10.¹ Remodelin also has cytotoxic effects against some species of the fungus Candida.²

References

- 1. Larrieu, D., Britton, S., Demir, M., et al. Chemical inhibition of NAT10 corrects defects of laminopathic cells. Science 344(6183), 527-532 (2014).
- 2. Chimenti, F., Bizzarri, B., Maccioni, E., et al. Synthesis and in vitro activity of 2-thiazolylhydrazone derivatives compared with the activity of clotrimazole against clinical isolates of Candida spp. Bioorg. Med. Chem. Lett. 17(16), 4635-4640 (2007).

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

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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