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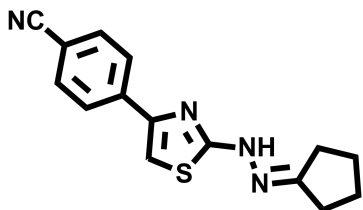
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Acetyl-transferase NAT10 Inhibitor – Remodelin

Chemical Name: 4-(2-(2-cyclopentylidenedrazinyl)thiazol-4-yl)benzonitrile



Molecular Weight:	282.36
Formula:	C ₁₅ H ₁₄ N ₄ S
Purity:	≥98%
CAS#:	n/a
Solubility:	DMSO up to 100 mM
Storage	Powder: 4 °C 1 year DMSO: 4 °C 3 months -20 °C 1 year

Biological Activity:

Remodelin is a novel potent and selective inhibitor of the acetyl-transferase protein NAT10. It can improve nuclear architecture, chromatin organization, and fitness of both human lamin A/C-depleted cells and HGPS-derived patient cells, and decrease markers of DNA damage in these cells. Using a combination of chemical, cellular, and genetic approaches, acetyl-transferase protein NAT10 was identified as the target of Remodelin that mediated nuclear shape rescue in laminopathic cells via microtubule reorganization. Down-regulation and mutations of the nuclear-architecture proteins lamin A and C cause misshapen nuclei and altered chromatin organization associated with cancer and laminopathies, including the premature-aging disease Hutchinson-Gilford progeria syndrome (HGPS). Remodelin is a useful chemical tool to study how NAT10 affects nuclear architecture and suggest alternative strategies for treating laminopathies and aging.

How to Use:

In vitro: Remodelin was used at 1-10 μM in vitro and cellular assays.

In vivo: n/a

Reference:

1. Larrieu D, et al. Chemical inhibition of NAT10 corrects defects of laminopathic cells. (2014) *Science* 344(6183):527-32.

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