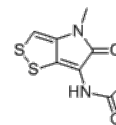


Product Name : Thiolutin
Cat. No. : PC-49453
CAS No. : 87-11-6
Molecular Formula : C₈H₈N₂O₂S₂
Molecular Weight : 228.29
Target : E3 Ubiquitin Ligase
Solubility : 10 mM in DMSO



Biological Activity

Thiolutin (Acetopyrrothine) is a small molecule inhibitor of the catalytic activity of **E3 ubiquitin ligase** RING finger protein 31 (**RNF31**, also known as **HOIP**), a catalytic subunit of linear ubiquitin chain assembly complex (LUBAC).

Thiolutin inhibits JAB1/MPN/Mov34 (JAMM) domain-containing metalloprotease, blocks NLRP3 inflammasome activation by canonical, noncanonical, alternative, and transcription-independent pathways at nanomolar concentrations.

Thiolutin alleviated NLRP3-related diseases in mouse models of lipopolysaccharide-induced sepsis, monosodium urate-induced peritonitis, experimental autoimmune encephalomyelitis, CAPS, and methionine-choline-deficient diet-induced nonalcoholic fatty liver disease.

Thiolutin improved the survival of recipients in murine myeloid leukemia and suppressed propagation in the patient-derived xenograft model of myeloid leukemia.

References

Koji Jimbo, et al. *Leukemia*. 2022 Nov 9. doi: 10.1038/s41375-022-01750-7.

Guang-Ming Ren, et al. *Sci Immunol*. 2021 Apr 30;6(58):eabe2933.

Caution: Product has not been fully validated for medical applications. Lab Use Only!

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