LKT Laboratories, Inc.

Thiolutin

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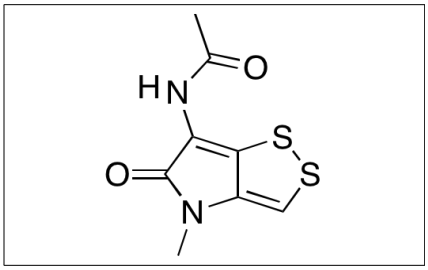
Product Information

Product ID T2834
CAS No. 87-11-6
Chemical Name

Synonym

Formula $C_8H_8N_2O_2S_2$
Formula Wt. 228.29
Melting Point 147-148°C
Purity ≥98%
Solubility Dichloromethane or Methanol, DMSO



Pricing and Availability

Bulk quanitites available upon request

Product ID	Size	List Price
T2834	1 mg	$64.20
T2834	5 mg	$211.30
T2834	10 mg	$371.90

Store Temp 4°C
Ship Temp Ambient

Description Thiolutin is a dithiolopyrrolone antibiotic synthesized by *Streptomyces*. Thiolutin displays broad spectrum antibacterial activity as well as some antifungal and anti-angiogenic activities. Thiolutin inhibits bacterial and yeast RNA polymerase, preventing RNA synthesis or transcription. Thiolutin also inhibits mRNA degradation. In vitro, this compound modulates HSP27 interactions to decrease actin stress fiber and F-actin levels and to increase cortical actin levels, resulting in inhibition of endothelial cell adhesion. Additionally, thiolutin decreases levels of paxillin and prevents endothelial cell adhesion in other in vitro models, inhibiting angiogenesis in S-180 tumor cells. TEST!!!!!!

References

Qin Z, Huang S, Yu Y, et al. Dithiolopyrrolone natural products: isolation, synthesis and biosynthesis. Mar Drugs. 2013 Oct 17;11 (10):3970-97. PMID: 24141227.

Jia Y, Wu SL, Isenberg JS, et al. Thiolutin inhibits endothelial cell adhesion by perturbing Hsp27 interactions with components of the actin and intermediate filament cytoskeleton. Cell Stress Chaperones. 2010 Mar;15(2):165-81. PMID: 19579057.

Pelechano V, Pérez-Ortín JE. The transcriptional inhibitor thiolutin blocks mRNA degradation in yeast. Yeast. 2008 Feb;25(2):85 -92. PMID: 17914747.

Minamiguchi K, Kumagai H, Masuda T, et al. Thiolutin, an inhibitor of HUVEC adhesion to vitronectin, reduces paxillin in HUVECs and suppresses tumor cell-induced angiogenesis. Int J Cancer. 2001 Aug 1;93(3):307-16. PMID: 11433393.

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