

Product Data Sheet

Product Name: Thiolutin
Cat. No.: GC17241

Chemical Properties

Cas. No. 87-11-6

Chemical Name N-(4-methyl-5-oxodithiolo[4,3-b]pyrrol-6-yl)acetamide

SMILES CC(=O)NC1=C2C(=CSS2)N(C1=O)C

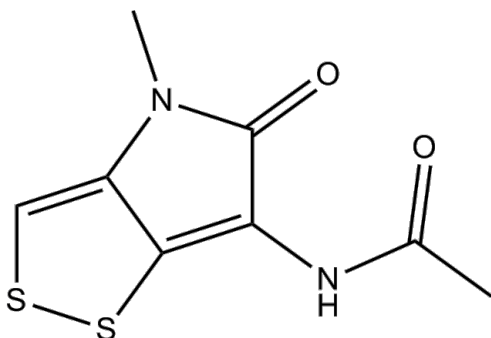
Formula $C_8H_8N_2O_2S_2$ M.Wt 228.28

Solubility DMF: 0.5 mg/ml, DMSO: 1 mg/ml, DMSO:PBS(pH7.2) (1:1): 0.5 mg/ml
Storage Desiccate at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure



Background

Thiolutin (Acetopyrrothine) is a disulfide-containing antibiotic and anti-angiogenic compound produced by *Streptomyces*. Thiolutin inhibits the JAMM metalloproteases Csn5, Associated-molecule-with-the-SH3-Domain-of-STAM (AMSH) and Brcc36[1]. Thiolutin is a potent and selective inhibitor of endothelial cell adhesion accompanied by rapid induction of Heat-shock protein beta-1 (Hsp27) phosphorylation[2].

Caution: Product has not been fully validated for medical applications. For research use only.

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References:

- [1]. Lauinger L, et al. Thiolutin is a zinc chelator that inhibits the Rpn11 and other JAMM metalloproteases. *Nat Chem Biol.* 2017 Jul;13(7):709-714.
- [2]. Jia Y, 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.

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