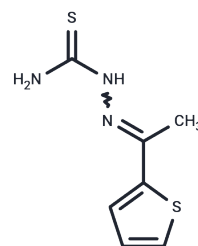


2-(1-(Thiophen-2-yl)ethylidene)hydrazinecarbothioamide

Chemical Properties

CAS No. :	5351-71-3
Formula:	C7H9N3S2
Molecular Weight:	199.3
Appearance:	no data available
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year



Biological Description

Description	2-(1-(Thiophen-2-yl)ethylidene)hydrazinecarbothioamide is an antimicrobial agent. It is active against the Gram-negative bacteria <i>E. coli</i> , <i>P. aeruginosa</i> , and <i>S. marcescens</i> (MICs = 64, 100, and 70 µg/ml, respectively), the Gram-positive bacteria <i>S. aureus</i> , <i>M. luteus</i> , and <i>B. cereus</i> (MICs = 130, 100, and 50 µg/ml, respectively), and the fungi <i>C. albicans</i> , <i>G. candidum</i> , <i>T. rubrum</i> , <i>F. oxysporum</i> , <i>A. flavus</i> , and <i>S. brevicaulis</i> (MICs = 69-120 µg/ml). 2-(1-(Thiophen-2-yl)ethylidene)hydrazinecarbothioamide is also a precursor in the synthesis of other antimicrobial agents, as well as compounds with anticancer activity. ^{1,2}
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Solubility Information

Solubility	Ethanol: 1 mg/mL DMSO:PBS (pH 7.2) (1:4): 0.20 mg/mL DMSO: 30 mg/mL DMF: 30 mg/mL (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	5.0176 mL	25.0878 mL	50.1756 mL
5 mM	1.0035 mL	5.0176 mL	10.0351 mL
10 mM	0.5018 mL	2.5088 mL	5.0176 mL
50 mM	0.1004 mL	0.5018 mL	1.0035 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Reference

Youssef, M.S.K., and Abeed, A.A.O. Synthesis and antimicrobial activity of some novel 2-thienyl substituted heterocycles *Heterocycl. Commun.* 20(1)25-31(2014)

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