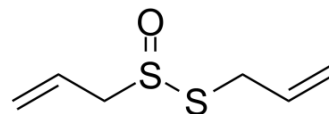


Allicin

Cat. No.:	HY-N0315
CAS No.:	539-86-6
Molecular Formula:	C ₆ H ₁₀ OS ₂
Molecular Weight:	162.27
Target:	Bacterial; Antibiotic
Pathway:	Anti-infection
Storage:	4°C, sealed storage, away from moisture and light * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



SOLVENT & SOLUBILITY

In Vitro	DMSO : 5 mg/mL (30.81 mM; Need ultrasonic) H ₂ O : < 0.1 mg/mL (insoluble)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	6.1626 mL	30.8128 mL	61.6257 mL
		5 mM	1.2325 mL	6.1626 mL	12.3251 mL
10 mM		0.6163 mL	3.0813 mL	6.1626 mL	
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 0.5 mg/mL (3.08 mM); Clear solution				

BIOLOGICAL ACTIVITY

Description	Allicin (diallyl thiosulfinate) is isolated from garlic including Diallyl monosulfide, Diallyl disulfide, Diallyl trisulfide, Diallyl tetrasulfide, and Methyl allyl disulphide etc. They accounts for 98% of the extract. Allicin (diallyl thiosulfinate) has highly potent antimicrobial activity, and inhibits growth of a variety of microorganisms, among them antibiotic-resistant strains ^[1] [2].
In Vitro	Allicin exhibits comparable MICs (32-64 µg/mL) toward methicillin-resistant <i>S. aureus</i> ATCC 43300, the type strain <i>S. aureus</i> DSM 20231, <i>E. coli</i> DSM 30083, <i>A. baumannii</i> DSM 30007, and <i>C. albicans</i> DSM 1386 ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Rahman, et al. Allicin and Other Functional Active Components in Garlic: Health Benefits and Bioavailability[J]. International Journal of Food Properties, 2007, 10(2):245-268.

[2]. Müller A, et al. Allicin Induces Thiol Stress in Bacteria through S-Allylmercapto Modification of ProteinCysteines. J Biol Chem. 2016 May 27;291(22):11477-90.

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

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