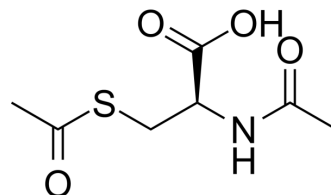


Dacisteine

Cat. No.:	HY-121765		
CAS No.:	18725-37-6		
Molecular Formula:	C ₇ H ₁₁ NO ₄ S		
Molecular Weight:	205.23		
Target:	Endogenous Metabolite		
Pathway:	Metabolic Enzyme/Protease		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 250 mg/mL (1218.15 mM)
 * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent		1 mg	5 mg	10 mg
	Concentration	Mass			
	1 mM		4.8726 mL	24.3629 mL	48.7258 mL
	5 mM		0.9745 mL	4.8726 mL	9.7452 mL
	10 mM		0.4873 mL	2.4363 mL	4.8726 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
 Solubility: ≥ 2.08 mg/mL (10.13 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
 Solubility: ≥ 2.08 mg/mL (10.13 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
 Solubility: ≥ 2.08 mg/mL (10.13 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Dacisteine (N,S-Diacetyl-L-cysteine) is a cysteine derivative and displays a less New Delhi metallo-beta-lactamase-1 (NDM-1) inhibitor with an IC₅₀ value of 1000 μM^[1]. Dacisteine can be used for the treatment of cardiovascular and cerebrovascular diseases caused by platelet aggregation^[2].

IC₅₀ & Target

IC₅₀: 1000 μM (NDM-1)^[1]

In Vivo

Dacisteine is a preparing agent for treating or preventing cardiovascular and cerebrovascular diseases caused by platelet aggregation.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Cui-Gai Bai¹, et al. Cysteine and Its Derivatives as New Delhi Metallo-beta-lactamase-1 Inhibitors. *Current Enzyme Inhibition*, 2015, 11, 46-57
- [2]. FanKe, et al. Application of compound of thioether acid structure in preparing anti-platelet aggregation drugs. Patent WO2019007015A1.
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Caution: Product has not been fully validated for medical applications. For research use only.

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