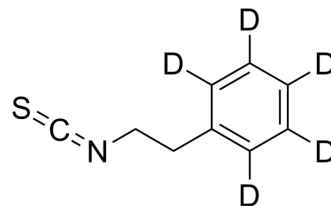


2-Phenylethyl isothiocyanate-d₅

Cat. No.:	HY-23155S		
CAS No.:	912627-98-6		
Molecular Formula:	C ₉ H ₄ D ₅ NS		
Molecular Weight:	168.27		
Target:	Fungal		
Pathway:	Anti-infection		
Storage:	Pure form	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



BIOLOGICAL ACTIVITY

Description

2-Phenylethyl isothiocyanate-d₅ isothiocyanate-d₅ is the deuterium labeled 2-Phenylethyl isothiocyanate[1]. 2-Phenylethyl isothiocyanate is a potent antifungal agent. 2-Phenylethyl isothiocyanate significantly inhibited spore germination and mycelial growth of *Alternaria alternata*, with a MIC (minimum inhibitory concentration) of 1.22 mM. The antifungal effect of 2-Phenylethyl isothiocyanate against *Alternaria alternata* might be via reduction in toxin content and breakdown of cell membrane integrity[2][3].

In Vitro

Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs^[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother*. 2019 Feb;53(2):211-216.
- [2]. B. J. Smith, et al. In vitro inhibition of soil microorganisms by 2-phenylethyl isothiocyanate. *Plant Pathology*. 4 October 2002;51(5):585-593.
- [3]. Zhang M, et al. 2-Phenylethyl Isothiocyanate Exerts Antifungal Activity against *Alternaria alternata* by Affecting Membrane Integrity and Mycotoxin Production. *Toxins (Basel)*. 2020 Feb 15;12(2):124.

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

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