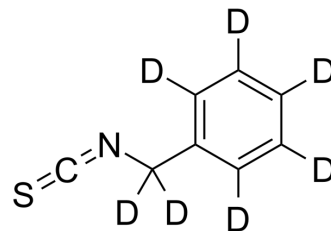


## Benzyl isothiocyanate-d7

Cat. No.:	HY-77813S
CAS No.:	1246818-63-2
Molecular Formula:	C <sub>8</sub> D <sub>7</sub> NS
Molecular Weight:	156.26
Target:	Bacterial; Apoptosis; Antibiotic
Pathway:	Anti-infection; Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Benzyl isothiocyanate-d7 is the deuterium labeled Benzyl isothiocyanate. Benzyl isothiocyanate is a member of natural isothiocyanates with antimicrobial activity <sup>[1][2]</sup> . Benzyl isothiocyanate potent inhibits cell mobility, migration and invasion nature and matrix metalloproteinase-2 (MMP-2) activity of murine melanoma cells <sup>[2]</sup> .
<b>In Vitro</b>	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 <sup>[1]</sup> . 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;53(2):211-216.
- [2]. Abdel-Kader MS, et al. Quantitative Analysis of Benzyl Isothiocyanate in *Salvadora persica* Extract and Dental Care Herbal Formulations Using Reversed Phase C18 High-Performance Liquid Chromatography Method. *Pharmacogn Mag.* 2017 Oct;13(Suppl 3):S412-S416.
- [3]. Lai KC, et al. Benzyl isothiocyanate and phenethyl isothiocyanate inhibit murine melanoma B16F10 cell migration and invasion in vitro. *Int J Oncol.* 2017 Sep;51(3):832-840.

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

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