Product Data Sheet

trans-Cinnamic acid-d₅

Cat. No.: HY-N0610S CAS No.: 352431-48-2 Molecular Formula: $C_9H_3D_5O_2$ Molecular Weight: 153.19

Target: Bacterial; Endogenous Metabolite

Pathway: Anti-infection; Metabolic Enzyme/Protease

Storage: Please store the product under the recommended conditions in the Certificate of

Analysis.

BIOLOGICAL ACTIVITY

Description	trans-Cinnamic acid- d_5 is the deuterium labeled trans-Cinnamic acid[1]. trans-Cinnamic acid is a natural antimicrobial, with minimal inhibitory concentration (MIC) of 250 μ g/mL against fish pathogen A. sobria, SY-AS1[2].
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]. Yilmaz S, et al. Antimicrobial activity of trans-cinnamic acid and commonly used antibiotics against important fish pathogens and nonpathogenic isolates. J Appl Microbiol. 2018 Sep 4.

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

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