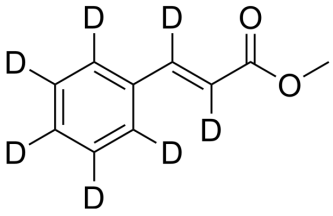
Methyl cinnamate-d_7

Cat. No.:	HY-W017212S
Molecular Formula:	$C_{10}H_3D_7O_2$
Molecular Weight:	169.23
Target:	AMPK; Tyrosinase; Bacterial; Isotope-Labeled Compounds
Pathway:	Epigenetics; PI3K/Akt/mTOR; Metabolic Enzyme/Protease; Anti-infection; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Methyl cinnamate-d_7 is deuterated labeled Cinnamyl Alcohol (HY-Y0078). Cinnamyl Alcohol is an active component from chestnut flower, inhibits increased PPARγ expression, with anti-obesity activity[1].
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]. In 3T3-L1 cell model, Methyl cinnamate (Methyl 3-phenylpropenoate) inhibits adipocyte differentiation by attenuating expression of the adipogenic transcription factors SREBP-1, PPARγ, and C/EBPα and the transcriptional activity of PPARγ. In addition, Methyl cinnamate (Methyl 3-phenylpropenoate) activates the CaMKK2?AMPK signaling cascade involved in the regulation of adipogenesis[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Chen YY, et al. Methyl cinnamate inhibits adipocyte differentiation via activation of the CaMKK2-AMPK pathwayin 3T3-L1 preadipocytes. J Agric Food Chem. 2012 Feb 1;60(4):955-63.

[2]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019 Feb;53(2):211-216.

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