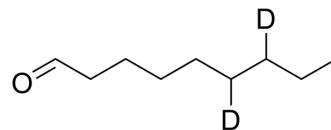


Nonanal-d₂

Cat. No.:	HY-N8016S2
CAS No.:	1335435-50-1
Molecular Formula:	C ₉ H ₁₆ D ₂ O
Molecular Weight:	144.25
Target:	Isotope-Labeled Compounds
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Nonanal-d ₂ is deuterated labeled Methyl cinnamate (HY-W017212). Methyl cinnamate (Methyl 3-phenylpropenoate), an active component of <i>Zanthoxylum armatum</i> , is a widely used natural flavor compound. Methyl cinnamate (Methyl 3-phenylpropenoate) possesses antimicrobial activity and is a tyrosinase inhibitor that can prevent food browning. Methyl cinnamate (Methyl 3-phenylpropenoate) has antiadipogenic activity through mechanisms mediated, in part, by the CaMKK2-AMPK signaling pathway ^[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] . Nonanal shows a significant activity against <i>B. cereus</i> and <i>L. monocytogenes</i> , the MIC values are both 7.8 µg/ml ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Nonanal shows a significant inhibitory effect on mice with diarrhoea induced with castor oil ^[2] . 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.

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

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