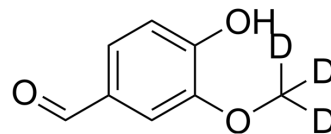


4-Hydroxy-3-methoxy benzaldehyde-d₃

Cat. No.:	HY-N0098S1
CAS No.:	74495-74-2
Molecular Formula:	C ₈ H ₅ D ₃ O ₃
Molecular Weight:	155.17
Target:	Endogenous Metabolite
Pathway:	Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	4-Hydroxy-3-methoxy benzaldehyde-d ₃ is the deuterium labeled Vanillin[1]. Vanillin (p-Vanillin) is a single molecule extracted from vanilla beans and also a popular odor used widely in perfume, food and medicine[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]. Lee SY, et al. Vanillin attenuates negative effects of ultraviolet A on the stemness of human adipose tissue-derived mesenchymal stem cells. *Food Chem Toxicol*. 2016 Oct;96:62-9.
- [3]. Xu J, et al. Vanillin-induced amelioration of depression-like behaviors in rats by modulating monoamine neurotransmitters in the brain. *Psychiatry Res*. 2015 Feb 28;225(3):509-14.

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

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