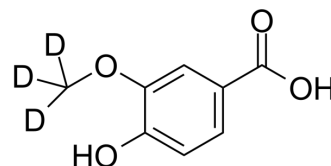


Vanillic acid-d3

Cat. No.:	HY-N0708S
CAS No.:	2733717-19-4
Molecular Formula:	C ₈ H ₅ D ₃ O ₄
Molecular Weight:	171.17
Target:	NF-κB; Bacterial; Endogenous Metabolite
Pathway:	NF-κB; Anti-infection; Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Vanillic acid-d3 is the deuterium labeled Vanillic acid. Vanillic acid is a flavoring agent found in edible plants and fruits. Vanillic acid inhibits NF-κB activation. Anti-inflammatory, antibacterial, and chemopreventive effects ^[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] . 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]. Calixto-Campos C, et al. Vanillic acid Inhibits Inflammatory Pain by Inhibiting Neutrophil Recruitment, Oxidative Stress, Cytokine Production, and NFκB Activation in Mice. *J Nat Prod*. 2015 Aug 28;78(8):1799-808.
- [3]. Amin FU, et al. Vanillic acid attenuates Aβ₁₋₄₂-induced oxidative stress and cognitive impairment in mice. *Sci Rep*. 2017 Jan 18;7:40753.

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

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