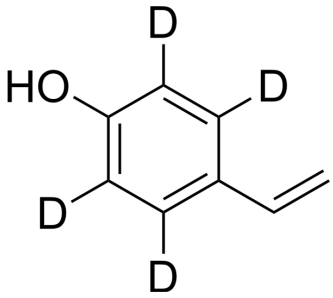
4-Vinylphenol-d_4

Cat. No.:	HY-W005288S
Molecular Formula:	$C_8H_4D_4O$
Molecular Weight:	124.17
Target:	Apoptosis; Endogenous Metabolite; Isotope-Labeled Compounds
Pathway:	Apoptosis; Metabolic Enzyme/Protease; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	4-Vinylphenol-d_4 is deuterated labeled Losartan (potassium) (HY-17512A). Losartan potassium (DuP-753 potassium) is an angiotensin II receptor type 1 (AT1) antagonist, competing with the binding of angiotensin II to AT1 with an IC_{50} of 20 nM.
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]. 4-Vinylphenol (12.5-200 μg/mL) significantly reduces cell viability in parental MDA-MB-231 cells, and the IC50 value is 109 μg/mL[2]. 4-Vinylphenol (0.15 or 0.3 μg/mL; 3 days) reduces sphere?formation and vimentin expression on CSCs in breast cancer[2]. 4-Vinylphenol (50, 100 μg/mL; 72 hours) significantly suppresses cell proliferation in CSC-enriched MDA-MB-231 cells. 4-Vinylphenol significantly reduces ALDH1A1 expression by 50% in CSC-enriched MDA-MB-231 cells[2]. 4-Vinylphenol (100 μg/mL) significantly increases the expressions of caspase 3, likely sensitizing CSC-enriched MDAMB-231 cells to apoptosis[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Leung HW, et al. The natural agent 4-vinylphenol targets metastasis and stemness features in breast cancer stem-like cells. Cancer Chemother Pharmacol. 2018 Aug;82(2):185-197.

[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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