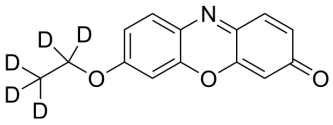
7-Ethoxyresorufin-d_5

Cat. No.:	HY-D0145S
CAS No.:	2749329-28-8
Molecular Formula:	$C_{14}H_6D_5NO_3$
Molecular Weight:	246.27
Target:	Cytochrome P450; NO Synthase; Isotope-Labeled Compounds
Pathway:	Metabolic Enzyme/Protease; Immunology/Inflammation; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	7-Ethoxyresorufin-d_5 is deuterium labeled 7-Ethoxyresorufin. 7-Ethoxyresorufin (Resorufin ethyl ether) is a fluorometric substrate and competitive inhibitor of cytochrome P450, especially CYP1A1. 7-Ethoxyresorufin also inhibits NO synthase[1][2].
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]. C G Li, et al. Inhibition of NO-medicate responses by 7-ethoxyresorufin, a substrate and competitive inhibitor of cytochrome P450. Br J Pharmacol. 1996 May;118(1):57-62.

[3]. Thomas K H Chang, et al. Enzymatic analysis of cDNA-expressed human CYP1A1, CYP1A2, and CYP1B1 with 7-ethoxyresorufin as substrate. Methods Mol Biol. 2006;320:85-90.

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