Enterolactone-d_6

Cat. No.: HY-108692S

CAS No.: 104411-11-2

Molecular Formula: $C_{18}H_{12}D_6O_4$

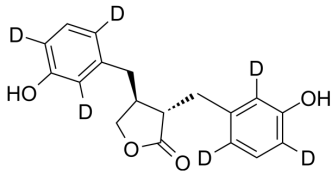
Molecular Weight: 304.37

Target: Apoptosis; Endogenous Metabolite; Isotope-Labeled Compounds

Pathway: Apoptosis; Metabolic Enzyme/Protease; Others

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 30 mg/mL (98.56 mM; Need ultrasonic and warming)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.2855 mL	16.4274 mL	32.8548 mL
	5 mM	0.6571 mL	3.2855 mL	6.5710 mL
	10 mM	0.3285 mL	1.6427 mL	3.2855 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

Enterolactone-d_6 is the deuterium labeled Enterolactone. Enterolactone is a bioactive phenolic metabolite known as a mammalian lignan derived from dietary lignans. Enterolactone has estrogenic properties and anti-breast cancer activity[1]. Enterolactone is a radiosensitizer for human breast cancer cell lines through impaired DNA repair and increased apoptosis[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]. Bigdeli B, et al. Enterolactone: A novel radiosensitizer for human breast cancer cell lines through impaired DNA repair and increased apoptosis. Toxicol Appl Pharmacol. 2016;313:180-194.

[3]. Mali AV, et al. Enterolactone modulates the ERK/NF-κB/Snail signaling pathway in triple-negative breast cancer cell line MDA-MB-231 to revert the TGF-β-induced epithelial-mesenchymal transition. Cancer Biol Med. 2018;15(2):137-156.

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