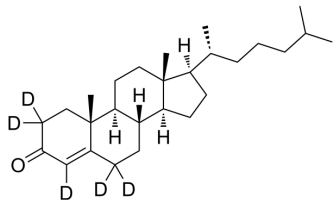
Cholestenone-d_5

Cat. No.:	HY-113365S
CAS No.:	72560-60-2
Molecular Formula:	$C_{27}H_{39}D_5O$
Molecular Weight:	389.67
Target:	Endogenous Metabolite
Pathway:	Metabolic Enzyme/Protease
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 6 months -20°C 1 month



BIOLOGICAL ACTIVITY

Description	Cholestenone-d_5 is the deuterium labeled Cholestenone. Cholestenone (4-Cholesten-3-one), the intermediate oxidation product of cholesterol, is metabolized primarily in the liver. Cholestenone is highly mobile in membranes and influences cholesterol flip-flop and efflux. Cholestenone may cause long-term functional defects in cells[1][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;53(2):211-216.

[2]. Neuvonen M, et, al. Enzymatic oxidation of cholesterol: properties and functional effects of cholestenone in cell membranes. PLoS One. 2014 Aug 26;9(8):e103743.

[3]. Rosenheim O, et al. The mechanism of coprosterol formation in vivo: 1. Cholestenone as an intermediate. Biochem J. 1943 Oct;37(4):513-4.

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