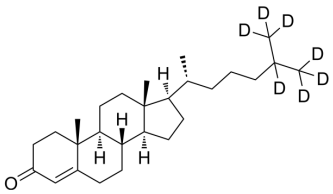
Cholestenone-d_7

Cat. No.:	HY-113365S3
CAS No.:	2389048-48-8
Molecular Formula:	$C_{27}H_{37}D_7O$
Molecular Weight:	391.68
Target:	Endogenous Metabolite; Isotope-Labeled Compounds
Pathway:	Metabolic Enzyme/Protease; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Cholestenone-d_7 is 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
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[3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

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

[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]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019;53(2):211-223.

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