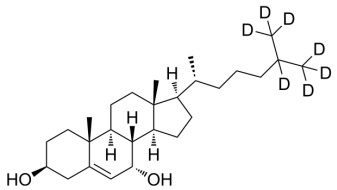
7α-Hydroxycholesterol-d_7

Cat. No.:	HY-N7264S
CAS No.:	349553-94-2
Molecular Formula:	$C_{27}H_{39}D_7O_2$
Molecular Weight:	409.7
Target:	Isotope-Labeled Compounds
Pathway:	Others
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 6 months -20°C 1 month



BIOLOGICAL ACTIVITY

Description	7α-Hydroxycholesterol-d_7 is the deuterium labeled 7α-Hydroxycholesterol. 7α-Hydroxycholesterol is a cholesterol oxide and is formed by both enzymatic and non-enzymatic oxidation. 7α-Hydroxycholesterol can be used as a biomarker for lipid peroxidation[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]. Ferderbar S, et al. Cholesterol oxides as biomarkers of oxidative stress in type 1 and type 2 diabetes mellitus. Diabetes Metab Res Rev. 2007 Jan;23(1):35-42.

[3]. Kitano S, et al. Oxidative status of human low density lipoprotein isolated by anion-exchange high-performance liquid chromatography--assessment by total hydroxyoctadecadienoic acid, 7-hydroxycholesterol, and 8-iso-prostaglandin F(2alpha). Anal Chim Acta. 2007 Feb 28;585(1):86-93.

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