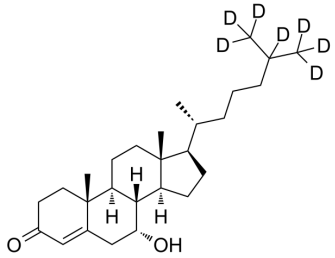
7α-Hydroxy-4-cholesten-3-one-d_7

Cat. No.:	HY-113259S
CAS No.:	2260669-17-6
Molecular Formula:	$C_{27}H_{37}D_7O_2$
Molecular Weight:	407.68
Target:	Endogenous Metabolite
Pathway:	Metabolic Enzyme/Protease
Storage:	Powder -20°C 3 years In solvent -80°C 6 months -20°C 1 month



BIOLOGICAL ACTIVITY

Description	7α-Hydroxy-4-cholesten-3-one-d_7 is the deuterium labeled 7α-Hydroxy-4-cholesten-3-one. 7α-Hydroxy-4-cholesten-3-one is an intermediate in synthesis of bile acids from cholesterol. 7α-Hydroxy-4-cholesten-3-one is a pregnane X receptor (PXR) agonist. 7α-Hydroxy-cholest-4-en-3-one is a biomarker for bile acid loss, irritable bowel syndrome, and other diseases associated with defective bile acid biosynthesis. 7α-Hydroxy-cholest-4-en-3-one is the physiological substrate for CYP8B1[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]. Offei SD, et al. Chemical synthesis of 7α-hydroxycholest-4-en-3-one, a biomarker for irritable bowel syndrome and bile acid malabsorption. Steroids. 2019 Nov;151:108449.

[3]. Gälman C, et al. Bile acid synthesis in humans has a rapid diurnal variation that is asynchronous with cholesterol synthesis. Gastroenterology. 2005 Nov;129(5):1445-53.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA