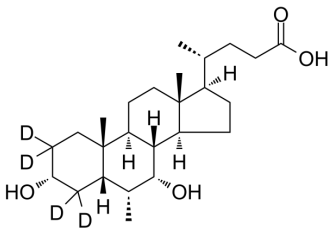
Obeticholic Acid-d4

Cat. No.:	HY-12222S1
Molecular Formula:	$C_{25}H_{38}D_4O_4$
Molecular Weight:	410.62
Target:	FXR; Autophagy
Pathway:	Metabolic Enzyme/Protease; Autophagy
Storage:	Powder -20°C 3 years In solvent -80°C 6 months -20°C 1 month



BIOLOGICAL ACTIVITY

Description	Obeticholic Acid-d4 is the deuterium labeled Obeticholic acid. Obeticholic acid (INT-747) is a potent, selective and orally active FXR agonist with an EC_{50} of 99 nM. Obeticholic acid has anticholeretic and anti-inflammation effect. Obeticholic acid also induces autophagy[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]. Pellicciari R, et al. 6alpha-ethyl-chenodeoxycholic acid (6-ECDCA), a potent and selective FXR agonist endowed with anticholestatic activity. J Med Chem. 2002 Aug 15;45(17):3569-72.

[3]. Ghebremariam YT, et al. FXR agonist INT-747 upregulates DDAH expression and enhances sensitivity in high-salt fed Dahl rats. PLoS One. 2013 Apr 4;8(4):e60653.

[4]. Verbeke L, et al. The FXR Agonist Obeticholic Acid Prevents Gut Barrier Dysfunction and Bacterial Translocation in Cholestatic Rats. Am J Pathol. 2015 Feb;185(2):409-19.

[5]. Fiorucci S, et al. Protective effects of 6-ethyl chenodeoxycholic acid, a farnesoid X receptor ligand, in estrogen-induced cholestasis. J Pharmacol Exp Ther. 2005 May;313(2):604-12.

Caution: Product has not been fully validated for medical applications. For research use only.

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