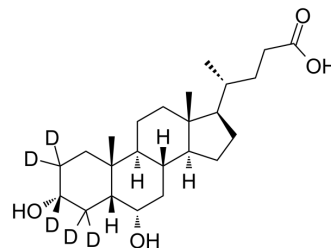


Hyodeoxycholic acid-d5

Cat. No.:	HY-N0169S
Molecular Formula:	C ₂₄ H ₃₅ D ₅ O ₄
Molecular Weight:	397.6
Target:	Endogenous Metabolite; GPCR19
Pathway:	Metabolic Enzyme/Protease; GPCR/G Protein
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Hyodeoxycholic acid-d5 (HDCA-d5) is the deuterium labeled Hyodeoxycholic acid. Hyodeoxycholic acid is a secondary bile acid formed in the small intestine by the gut flora, and acts as a TGR5 (GPCR19) agonist, with an EC ₅₀ of 31.6 μM in CHO cells.
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]. Sato H, et al. Novel potent and selective bile acid derivatives as TGR5 agonists: biological screening, structure-activity relationships, and molecular modeling studies. *J Med Chem.* 2008 Mar 27;51(6):1831-41.
- [3]. Shih DM, et al. Hyodeoxycholic acid improves HDL function and inhibits atherosclerotic lesion formation in LDLR-knockout mice. *FASEB J.* 2013 Sep;27(9):3805-17.

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

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