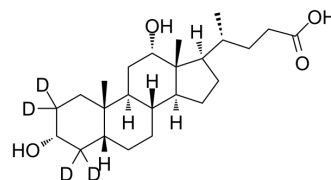


Deoxycholic acid-d₄

Cat. No.:	HY-N0593S		
CAS No.:	112076-61-6		
Molecular Formula:	C ₂₄ H ₃₆ D ₄ O ₄		
Molecular Weight:	396.6		
Target:	G protein-coupled Bile Acid Receptor 1; Endogenous Metabolite		
Pathway:	GPCR/G Protein; Metabolic Enzyme/Protease		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (252.14 mM; Need ultrasonic)
 DMSO : 100 mg/mL (252.14 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent \ Mass	1 mg	5 mg	10 mg
	Concentration			
	1 mM	2.5214 mL	12.6072 mL	25.2143 mL
	5 mM	0.5043 mL	2.5214 mL	5.0429 mL
	10 mM	0.2521 mL	1.2607 mL	2.5214 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

Deoxycholic acid-d₄ is the deuterium labeled Deoxycholic acid. Deoxycholic acid is specifically responsible for activating the G protein-coupled bile acid receptor TGR5 that stimulates brown adipose tissue (BAT) thermogenic activity.

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]. Somm E, et al. β-Klotho deficiency protects against obesity through a crosstalk between liver, microbiota, and brown adipose tissue. *JCI Insight.* 2017 Apr 20;2(8). pii:

91809.

[3]. Wang X, et al. Acidified bile acids enhance tumor progression and telomerase activity of gastric cancer in micedependent on c-Myc expression. Cancer Med. 2017 Apr;6(4):788-797.

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

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