Cholesterol-$^{13}C_2$

Cat. No.: HY-N0322S5

CAS No.: 78887-48-6

Molecular Formula: $C_{25}{}^{13}C_2H_{46}O$

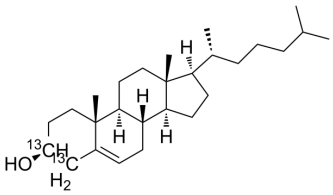
Molecular Weight: 388.64

Target: Estrogen Receptor/ERR; Endogenous Metabolite

Pathway: Vitamin D Related/Nuclear Receptor; 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

Ethanol : 5.56 mg/mL (14.31 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.5731 mL	12.8654 mL	25.7308 mL
	5 mM	0.5146 mL	2.5731 mL	5.1462 mL
	10 mM	0.2573 mL	1.2865 mL	2.5731 mL

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

BIOLOGICAL ACTIVITY

Description

Cholesterol-$^{13}C_2$ is the ^{13}C labeled Cholesterol. Cholesterol is the major sterol in mammals. It is making up 20-25% of structural component of the plasma membrane. Plasma membranes are highly permeable to water but relatively impermeable to ions and protons. Cholesterol plays an important role in determining the fluidity and permeability characteristics of the membrane as well as the function of both the transporters and signaling proteins[1][2]. Cholesterol is also an endogenous estrogen-related receptor α (ERRα) agonist[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.

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