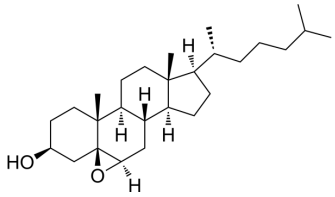
Cholesterol 5beta,6beta-epoxide

Cat. No.:	HY-130502
CAS No.:	4025-59-6
Molecular Formula:	$C_{27}H_{46}O_2$
Molecular Weight:	402.65
Target:	Biochemical Assay Reagents
Pathway:	Others
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 : 20 mg/mL (49.67 mM; Need ultrasonic and warming)

Preparing Stock Solutions

Mass / Solvent / Concentration	1 mg	5 mg	10 mg
1 mM	2.4835 mL	12.4177 mL	24.8355 mL
5 mM	0.4967 mL	2.4835 mL	4.9671 mL
10 mM	0.2484 mL	1.2418 mL	2.4835 mL

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

BIOLOGICAL ACTIVITY

Description

Cholesterol 5beta,6beta-epoxide is an oxidative metabolite of cholesterol formed by free-radical and non-radical oxidation of cholesterol at the 5,6 double bond. Induces lactate dehydrogenase (LDH) release and apoptosis in macrophage-differentiated U937 cells. Cholesterol 5beta,6beta-epoxide has been found in human fatty streaks and advanced atherosclerotic lesions, but not in normal aortic tissue[1][2][3].

REFERENCES

[1]. Pulfer M K, et al. Formation of biologically active oxysterols during ozonolysis of cholesterol present in lung surfactant[J]. Journal of Biological Chemistry, 2004, 279(25): 26331-26338.

[2]. Aringer L, et al. Formation and metabolism in vitro of 5, 6-epoxides of cholesterol and ⊠-sitosterol[J]. Journal of Lipid Research, 1974, 15(4): 389-398.

[3]. Garcia-Cruset S, et al. Oxysterol profiles of normal human arteries, fatty streaks and advanced lesions. Free Radic Res. 2001 Jul;35(1):31-41.

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

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