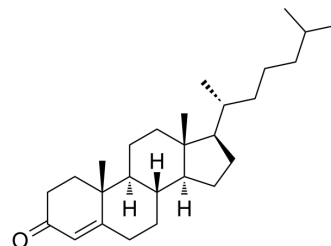


Cholestenone

Cat. No.:	HY-113365		
CAS No.:	601-57-0		
Molecular Formula:	C ₂₇ H ₄₄ O		
Molecular Weight:	384.64		
Target:	Endogenous Metabolite		
Pathway:	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 : 50 mg/mL (129.99 mM; Need ultrasonic)
 DMSO : 2 mg/mL (5.20 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	2.5998 mL	12.9992 mL	25.9983 mL
	5 mM	0.5200 mL	2.5998 mL	5.1997 mL
	10 mM	0.2600 mL	1.2999 mL	2.5998 mL

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

In Vivo

- Add each solvent one by one: 10% EtOH >> 40% PEG300 >> 5% Tween-80 >> 45% saline
 Solubility: ≥ 2.5 mg/mL (6.50 mM); Clear solution
- Add each solvent one by one: 10% EtOH >> 90% (20% SBE-β-CD in saline)
 Solubility: 2.5 mg/mL (6.50 mM); Suspended solution; Need ultrasonic
- Add each solvent one by one: 10% EtOH >> 90% corn oil
 Solubility: ≥ 2.5 mg/mL (6.50 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Cholestenone (4-Cholesten-3-one), the intermediate oxidation product of cholesterol, is metabolized primarily in the liver. Cholestenone is highly mobile in membranes and influences cholesterol flip-flop and efflux. Cholestenone may cause long-term functional defects in cells^{[1][2]}.

IC₅₀ & Target

Human Endogenous Metabolite

REFERENCES

- [1]. Rosenheim O, et al. The mechanism of coprosterol formation in vivo: 1. Cholestenone as an intermediate. *Biochem J.* 1943 Oct;37(4):513-4.
- [2]. Neuvonen M, et, al. Enzymatic oxidation of cholesterol: properties and functional effects of cholestenone in cell membranes. *PLoS One.* 2014 Aug 26;9(8):e103743.
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Caution: Product has not been fully validated for medical applications. For research use only.

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