

7Beta-Hydroxycholesterol

Chemical Properties

CAS No.:	566-27-8
Formula:	C ₂₇ H ₄₆ O ₂
Molecular Weight:	402.65
Appearance:	N/A
Storage:	0-4°C for short term (days to weeks), or -20°C for long term (months).

Biological Description

Description	7beta-Hydroxycholesterol, a major cytotoxin in oxidized LDL, induces Ca(2+) oscillations, MAP kinase activation and apoptosis in human aortic smooth muscle cells.
Targets(IC ₅₀)	LDL: None Calcium Channel: None MAPK: None
In vitro	7beta-OHC decreased clonogenic survival of NCI-H460 in a dose dependent pattern. 7beta-OHC induced apoptosis in NCI-H460, with the characteristic features like increase in sub-G(1) hypodiploid (apoptotic) cells, and apoptotic body formation, as evidenced by flow cytometry and fluorescence microscope, respectively. Apoptosis was also associated with loss of mitochondrial transmembrane potential, and the activation of caspases 9 and 3. 7beta-OHC resulted in generation of reactive oxygen species (ROS) during apoptosis[1]

Solubility Information

Solubility	< 1 mg/ml refers to the product slightly soluble or insoluble
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.484 mL	12.418 mL	24.835 mL
5 mM	0.497 mL	2.484 mL	4.967 mL
10 mM	0.248 mL	1.242 mL	2.484 mL
50 mM	0.05 mL	0.248 mL	0.497 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

Reference

1. Cytotoxic effect of 7beta-hydroxycholesterol on human NCI-H460 lung cancer cells. Biol. Pharm. Bull., 2005, 28(8):1377-80.

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