

## Cholesteryl Hemisuccinate

## Chemical Properties

CAS No. : 1510-21-0

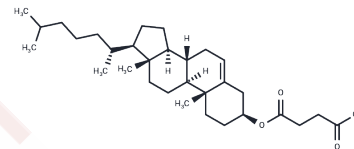
Formula: C<sub>31</sub>H<sub>50</sub>O<sub>4</sub>

Molecular Weight: 486.73

Store at low temperature

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



## Biological Description

Description	Cholesteryl Hemisuccinate (Cholesterol hydrogen succinate) is a highly soluble cholesterol analogue often used in polar solutions for its hepatoprotective, anticancer and tumour growth inhibiting properties. Cholesteryl Hemisuccinate inhibits the hepatotoxicity of acetaminophen and prevents AAP-induced apoptosis and necrosis in hepatocytes. Cholesteryl Hemisuccinate inhibits DNA polymerase and DNA topoisomerase, thereby inhibiting DNA replication and repair as well as cell division.
Targets(IC50)	Apoptosis, DNA/RNA Synthesis, Necroptosis, Topoisomerase
In vitro	Cholesteryl Hemisuccinate (0-1000 µM) inhibited the growth of MCF-7 and MCF-10A cells.[3]
In vivo	Cholesteryl Hemisuccinate (100 mg/kg ; ip ; single administration before AAP) eliminated AAP-induced apoptosis and necrosis in ICR mice (CD-1) for histological and biochemical diagnosis.[1]

## Solubility Information

Solubility	DMSO: 10 mg/mL (20.55 mM), Sonication is recommended. Ethanol: 22.5 mg/mL (46.23 mM), Sonication is recommended. ( < 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% EtOH+90% Corn Oil: 2 mg/mL (4.11 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

### Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.0545 mL	10.2726 mL	20.5453 mL
5 mM	0.4109 mL	2.0545 mL	4.1091 mL
10 mM	0.2055 mL	1.0273 mL	2.0545 mL
50 mM	0.0411 mL	0.2055 mL	0.4109 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

- Ray SD, et al. Protection of acetaminophen-induced hepatocellular apoptosis and necrosis by cholesteryl hemisuccinate pretreatment. *J Pharmacol Exp Ther.* 1996 ; 279(3):1470-1483.
- Varshosaz J, et al. Folated synperonic-cholesteryl hemisuccinate polymeric micelles for the targeted delivery of docetaxel in melanoma. *Biomed Res Int.* 2015 ; 2015:746093.
- Djuric Z, et al. Growth inhibition of MCF-7 and MCF-10A human breast cells by alpha-tocopheryl hemisuccinate, cholesteryl hemisuccinate and their ether analogs. *Cancer Lett.* 1997 ; 111(1-2):133-139.
- Pajor L, et al. Cholesteryl hemisuccinate's inductive effect on membrane rigidization regarding both, its remodelling of the cells' surface receptor pattern and its decreasing the natural killer susceptibility of K-562 cells. *Acta Biol Hung.* 1991 ; 42(4):371-383.
- Yamamoto Y, et al. Relationship between Thylakoid Membrane Fluidity and the Functioning of Pea Chloroplasts : EFFECT OF CHOLESTERYL HEMISUCCINATE. *Plant Physiol.* 1981 ; 67(6):1069-1072.

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