

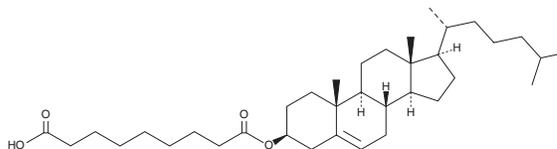
# PRODUCT INFORMATION



## 9CCN

Item No. 40739

**CAS Registry No.:** 596592-83-5  
**Formal Name:** (3 $\beta$ )-cholest-5-en-3-ol,  
3-(hydrogen nonanedioate)  
**Synonym:** Cholesteryl-9-carboxynonanoate  
**MF:** C<sub>36</sub>H<sub>60</sub>O<sub>4</sub>  
**FW:** 556.9  
**Purity:**  $\geq$ 90%  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:**  $\geq$ 4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

9CCN is supplied as a solid. A stock solution may be made by dissolving the 9CCN in the solvent of choice, which should be purged with an inert gas. 9CCN is slightly soluble (0.1-1 mg/ml) in ethanol and DMSO.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of 9CCN can be prepared by directly dissolving the solid in aqueous buffers. 9CCN is slightly soluble (0.1-1 mg/ml) in PBS (pH 7.2). We do not recommend storing the aqueous solution for more than one day.

### Description

9CCN is a cholesterol ester and oxidized anionic lipid.<sup>1</sup> It has been found both intracellularly in plaque macrophages and extracellularly in atherosclerotic lesions where it acts as an 'eat-me' signal to facilitate phagocytic uptake of apoptotic debris. 9CCN has been used in the formation of lipid nanoparticles (LNPs) for the delivery of antagonomiRs, chemically modified oligonucleotides that bind specifically to a particular miRNA, to macrophages *in vitro* and *in vivo*.<sup>1,2</sup>

### References

1. Maiseyeu, A., Mihai, G., Roy, S., *et al.* Detection of macrophages via paramagnetic vesicles incorporating oxidatively tailored cholesterol ester: An approach for atherosclerosis imaging. *Nanomedicine (Lond)* **5(9)**, 1341-1356 (2010).
2. Mallén, A., Narváez-Narváez, D.A., Pujol, M.D., *et al.* Development of cationic solid lipid nanoparticles incorporating cholesteryl-9-carboxynonanoate (9CCN) for delivery of antagonomiRs to macrophages. *Eur. J. Pharm. Biopharm.* **197:114238**, (2024).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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