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## Product Data Sheet

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Product Name: Cholestenone-13C

Cat. No.: GC68861

### Chemical Properties

Cas. No. 68165-57-1

Formula  $C_{26}^{13}CH_{44}O$  M.Wt 385.63

Solubility Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure

### Background

Cholestenone- $^{13}C$  is the  $^{13}C$  labeled Cholestenone. Cholestenone (4-Cholesten-3-one), the intermediate oxidation product of cholesterol flip-flop and efflux. Cholestenone may cause long-term functional defects in cells[1][2][3].

Stable heavy isotopes of drogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs[1].

[1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother.* 2019;53(2):211-216.

[2]. Rosenheim O, et al. The mechanism of coprosterol formation in vivo: 1. Cholestenone as an intermediate. *Biochem J.* 1943 Oct;37(4):513-4.

[3]. 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.

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

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