

# PRODUCT INFORMATION



## Cholesteryl Palmitate-d<sub>9</sub>

Item No. 28123

**Formal Name:** (3S,8S,9S,10R,13R,14S,17R)-10,13-dimethyl-17-((R)-6-methylheptan-2-yl)-2,3,4,7,8,9,10,11,12,13,14,15,16,17-tetradecahydro-1H-cyclopenta[a]phenanthren-3-yl hexadecanoate-13,13,14,14,15,15,16,16,16-d<sub>9</sub>

**Synonyms:** 16:0-d<sub>9</sub> Cholesterol ester, Cholesterol Palmitate-d<sub>9</sub>, 16:0-d<sub>9</sub>(CE), CE(16:0-d<sub>9</sub>)

**MF:** C<sub>43</sub>H<sub>67</sub>D<sub>9</sub>O<sub>2</sub>

**FW:** 634.1

**Chemical Purity:** ≥95% (Cholesteryl Palmitate)

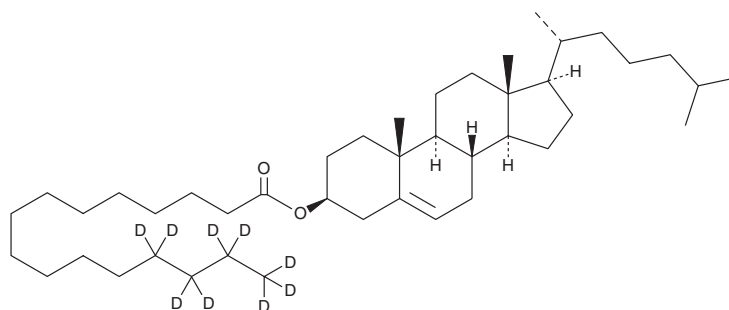
**Deuterium**

**Incorporation:** ≥99% deuterated forms (d<sub>1</sub>-d<sub>9</sub>); ≤1% d<sub>0</sub>

**Supplied as:** A solution in chloroform

**Storage:** -20°C

**Stability:** ≥2 years



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

## Laboratory Procedures

Cholesteryl palmitate-d<sub>9</sub> is intended for use as an internal standard for the quantification of cholesteryl palmitate (Item No. 26473) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

## Description

Cholesteryl palmitate is a cholesterol ester. It is a major cholesterol ester found in human meibum and has been used to form a stable tear film to study amphiphilic block copolymers as surfactants for dry eyes.<sup>1</sup> Cholesteryl palmitate levels in amniotic fluid are decreased in pregnancies in which infants later developed respiratory distress syndrome and in patients with well-controlled diabetes.<sup>2,3</sup> Levels of cholesteryl palmitate are increased in bronchoalveolar lavage fluid (BALF) from patients with chronic interstitial pneumonia.<sup>4</sup>

## References

1. Shine, W.E. and McCulley, J.P. *Curr. Eye Res.* **26**(2), 89-94 (2003).
2. Ludmir, J., Alvarez, J.G., Mennuti, M.T., et al. *Am. J. Obstet. Gynecol.* **157**(1), 84-88 (1987).
3. Ludmir, J., Alvarez, J.G., Landon, M.B., et al. *Obstet. Gynecol.* **73**(3 Pt.1), 360-362 (1988).
4. Fukuhara, N., Tachihara, M., Tanino, Y., et al. *Respir. Investig.* **54**(2), 109-115 (2016).

### 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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