

PRODUCT DATA SHEET

Cholesterol-*beta*-D-glucoside

Catalog number: 1940

Common Name: Cholesteryl-*beta*-D-glucopyranoside

Source: semisynthetic, plant

Solubility: chloroform/methanol 2:1

CAS number: 7073-61-2

Molecular Formula: C₃₃H₅₆O₆

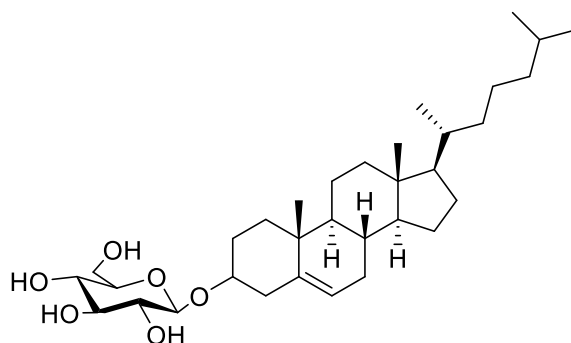
Molecular Weight: 549

Storage: -20°C

Purity: TLC: 98%; HPLC: 98+% identity confirmed by MS

TLC System: chloroform/methanol/2.5 M ammonium hydroxide (70:15:2 by vol.)

Appearance: white solid



Application Notes:

The physiological significance of the glucosylation of cholesterol is to render cholesterol far more water soluble and usable for transportation within a cell.¹ Parkinsonism and glucosylceramide metabolism appear to be linked given the high incidence of neurodegenerative conditions in patients with Gaucher disease, a lysosomal storage disorder.² It may be speculated that glucosylceramide acts as a donor in the biosynthesis of the potentially neurotoxic steryl- β -glucosides, implying that cholesteryl- β -glucoside is a missing link between parkinsonism and Gaucher.³

Selected References:

1. Westbroek, W.; Gustafson, A. M.; Sidransky, E. *Trends Mol. Med.* **2011**, 286, 28080–28088.
2. A. R. A. Marques, et al. "Glucosylated cholesterol in mammalian cells and tissues: formation and degradation by multiple cellular-glucosidases" *Journal of Lipid Research*, vol. 57 pp. 451-463, 2016
3. "Synthesis of α - and β -Cholesteryl Glucosides." Chapter 6. Retrieved from <https://openaccess.leidenuniv.nl/bitstream/handle/1887/18246/06.pdf?sequence=8>

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