

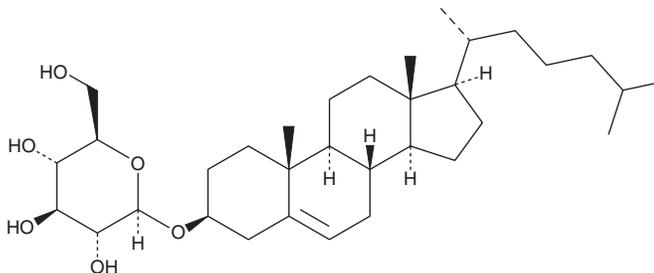
PRODUCT INFORMATION



Cholesterol β -D-Glucoside

Item No. 26713

CAS Registry No.: 7073-61-2
Formal Name: cholest-5-en-3 β -yl, β -D-glucopyranoside
Synonyms: β -ChlGlc, Cholesteryl Glucoside, GluChol, Glucosyl Cholesterol
MF: C₃₃H₅₆O₆
FW: 548.8
Purity: \geq 95%
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

Cholesterol β -D-glucoside is supplied as a solid. A stock solution may be made by dissolving the cholesterol β -D-glucoside in the solvent of choice. Cholesterol β -D-glucoside is soluble in the organic solvent ethanol, which should be purged with an inert gas, at a concentration of approximately 20 mg/ml.

Description

Cholesterol β -D-glucoside is a derivative of cholesterol that contains β -D-glucose (Item No. 16775). It is formed from cholesterol and glucosylceramide by β -glucosidase 1.¹ It activates heat shock transcription factor 1 (Hsf1) in response to heat shock, which increases the expression of heat shock protein 70 (Hsp70) in TIG-3 human fetal lung fibroblasts when used at a concentration of 10 μ M.² Cholesterol β -D-glucoside (100 mg/kg) prevents ulcer formation following cold-restraint stress and increases Hsf1 activity, as well as Hsp70 expression and protein levels in rat gastric mucosa.³

References

1. Akiyama, H., Kobayashi, S., Hirabayashi, Y., *et al.* Cholesterol glucosylation is catalyzed by transglucosylation reaction of β -glucosidase 1. *Biochem. Bioph. Res. Commun.* **441(4)**, 838-843 (2013).
2. Kunitomo, S., Murofushi, W., Kai, H., *et al.* Steryl glucoside is a lipid mediator in stress-responsive signal transduction. *Cell Struct. Funct.* **27(3)**, 157-162 (2002).
3. Kunitomo, S., Murofushi, W., Yamatsu, I., *et al.* Cholesteryl glucoside-induced protection against gastric ulcer. *Cell Struct. Funct.* **28(3)**, 179-186 (2003).

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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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM