

PRODUCT INFORMATION

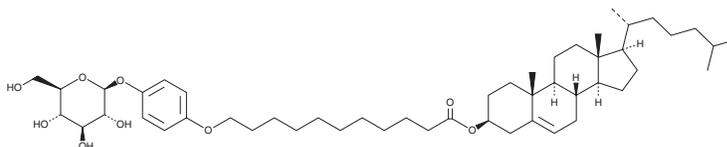


Cholesterol-Undecanoate-Glucose Conjugate

Item No. 38642

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 11-(4-(((2S,3R,4S,5S,6R)-3,4,5-trihydroxy-6-(hydroxymethyl)tetrahydro-2H-pyran-2-yl)oxy)phenoxy)undecanoate

MF: C₅₀H₈₀O₉
FW: 825.2
Purity: ≥98%
UV/Vis.: λ_{max}: 225, 285 nm
Supplied as: A solid
Storage: -20°C
Stability: ≥2 years



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

Laboratory Procedures

Cholesterol-undecanoate-glucose conjugate is supplied as a solid. A stock solution may be made by dissolving the cholesterol-undecanoate-glucose conjugate in the solvent of choice, which should be purged with an inert gas. Cholesterol-undecanoate-glucose conjugate is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of cholesterol-undecanoate-glucose conjugate in ethanol is approximately 2 mg/ml and approximately 30 mg/ml in DMSO and DMF.

Description

Cholesterol-undecanoate-glucose conjugate is a glucose-based lipid conjugate that has been used in the generation of brain-targeted liposomes.¹ It forms a stable, ordered bilayer with phospholipids with the glucose moiety facing outward for the purpose of being recognized by glucose transporter 1 (GLUT1) on the blood-brain barrier. Intravenous and intranasal administration of fluorescently labeled liposomes containing cholesterol-undecanoate-glucose conjugate and encapsulating the antimalarial artesunate (Item No. 11817) and the methylated pyrazine ligustrazine (Item No. 29658) induces increased brain fluorescence intensity and a reduced infection rate in a mouse model of *P. falciparum*-induced cerebral malaria when compared with fluorescently labeled non-cholesterol-undecanoate-glucose conjugate-containing liposomes encapsulating artesunate and ligustrazine.

Reference

1. Tian, Y., Zheng, Z., Wang, X., *et al.* Establishment and evaluation of glucose-modified nanocomposite liposomes for the treatment of cerebral malaria. *J. Nanobiotechnology* **20**(1), 318 (2022).

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.

WARRANTY AND LIMITATION OF REMEDY

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