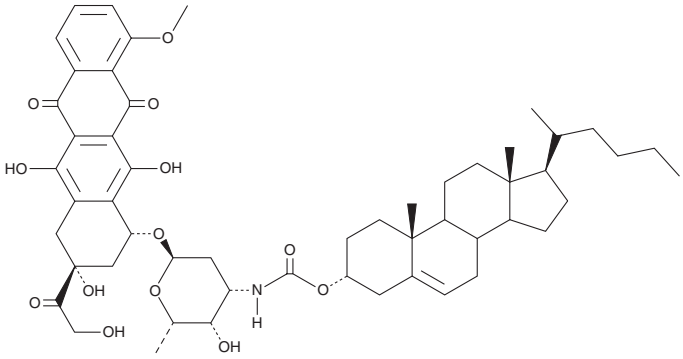
PRODUCT INFORMATION

Cholesterol-Doxorubicin

Item No. 9004198

Formal Name: (3R,10R,13R,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 ((2S,3S,4S,6R)-3-hydroxy-2-methyl-6-(((1R,3R)-3,5,12-trihydroxy-3-(2-hydroxyacetyl)-10-methoxy-6,11-dioxo-1,2,3,4,6,11-hexahydrotetracen-1-yl)oxy)tetrahydro-2H-pyran-4-yl)carbamate



Synonym: Chol-DOX

MF: $C_{55}H_{73}NO_{13}$

FW: 956.2

Purity: ≥95%

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-doxorubicin (Chol-DOX) is supplied as a solid. A stock solution may be made by dissolving the chol-DOX in the solvent of choice, which should be purged with an inert gas. Chol-DOX is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of chol-DOX in DMSO is approximately 2 mg/ml and approximately 25 mg/ml in DMF. Chol-DOX is slightly soluble in ethanol.

Description

Chol-DOX is a prodrug form of the anticancer agent doxorubicin (DOX; Item No. 15007).[1] Chol-DOX, when combined with tocopherol polyethylene glycol succinate/tocofersolan (TPGS; Item No. 34661) in nanoassemblies, reduces MCF-7 and MDA-MB-231 breast cancer cell viability.

Reference

1. Olim, F., Neves, A.R., Vieira, M., *et al.* Self-assembly of cholesterol-doxorubicin and TPGS into prodrug-based nanoparticles with enhanced cellular uptake and lysosome-dependent pathway in breast cancer cells. *Eur. J. Lipid Sci. Technol.* **123(5)**, 2000337 (2021).

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