

Product Data Sheet

Product Name: Glucosamine Cholesterol

Cat. No.: GC91162

Chemical Properties

Cas. No. 1257309-90-2

Formula $C_{37}H_{61}NO_8$

M.Wt 647.9

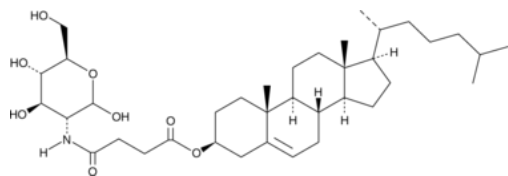
Solubility DMSO: Soluble (sonicate)

Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37°C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure



Background

Glucosamine cholesterol is a glucosamine-based lipid conjugate that has been used in the formation of lipid nanoparticles (LNPs).¹ It forms a stable, ordered bilayer with the glucosamine moiety facing outward to facilitate recognition by glucose transporter 1 (GLUT1) on cells. LNPs containing glucosamine cholesterol and encapsulating ceramide induce apoptosis in poxic human A549 lung carcinoma cells and A549-derived side population cells, also known as cancer stem cells (CSCs), but not poxic mouse L-929 fibroblasts. LNPs containing glucosamine cholesterol and encapsulating paclitaxel and carboplatin reduce tumor volume and increase the number of tumor-associated cytotoxic T cells in an LL/2 murine lung carcinoma model.

Caution: Product has not been fully validated for medical applications. For research use only.

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