

PRODUCT INFORMATION



C8 Galactosylceramide (d18:1/8:0)

Item No. 24346

CAS Registry No.: 41613-16-5

Formal Name: N-[(1S,2R,3E)-1-[(β-D-galactopyranosyloxy)methyl]-2-hydroxy-3-heptadecen-1-yl]-octanamide

Synonyms: Galactosylceramide (d18:1/8:0), N-octanoyl-β-D-Galactosylceramide, GalCer(d18:1/8:0)

MF: C₃₂H₆₁NO₈

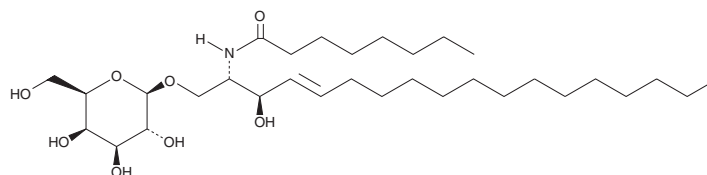
FW: 587.8

Purity: ≥98%

Supplied as: A solid

Storage: -20°C

Stability: ≥4 years



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

Laboratory Procedures

C8 Galactosylceramide (d18:1/8:0) is supplied as a solid. A stock solution may be made by dissolving the C8 galactosylceramide (d18:1/8:0) in the solvent of choice. C8 Galactosylceramide (d18:1/8:0) is soluble in ethanol, methanol, and a 9:1 solution of chloroform:methanol.

Description

C8 Galactosylceramide is a synthetic C8 short-chain derivative of known membrane microdomain-forming sphingolipids.¹ It increases the amount delivered and toxicity of doxorubicin (Item No. 15007) in cancerous but not non-cancerous cells when incorporated into the nanoliposomal membrane of nanoliposomal-doxorubicin. C8 Galactosylceramide induces proliferation and cytokine production by splenocytes *in vitro* at concentrations ranging from 100-1,000 ng/ml but has no effect on natural killer T cell production *in vivo*.² It also activates NF-κB production in C6 glioma cells when used at a concentration of 10 μM.³

References

1. Pedrosa, L.R., van Hell, A., Süß, R., *et al.* Improving intracellular doxorubicin delivery through nanoliposomes equipped with selective tumor cell membrane permeabilizing short-chain sphingolipids. *Pharm. Res.* **30**(7), 1883-1895 (2013).
2. Parekh, V.V., Singh, A.K., Wilson, M.T., *et al.* Quantitative and qualitative differences in the *in vivo* response of NKT cells to distinct α- and β-anomeric glycolipids. *J. Immunol.* **173**(6), 3693-3706 (2004).
3. Chang, Y.-T., Choi, J., Ding, S., *et al.* The synthesis and biological characterization of a ceramide library. *J. Am. Chem. Soc.* **124**(9), 1856-1857 (2002).

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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