

PRODUCT INFORMATION



C12 Galactosylceramide (d18:1/12:0)

Item No. 24347

CAS Registry No.: 41613-14-3
Formal Name: N-[(1S,2R,3E)-1-[(β-D-galactopyranosyloxy)methyl]-2-hydroxy-3-heptadecen-1-yl]-dodecanamide
Synonyms: N-Dodecanoyl-β-D-Galactosylceramide, Galactosylceramide (d18:1/12:0), GalCer(d18:1/12:0)

MF: C₃₆H₆₉NO₈

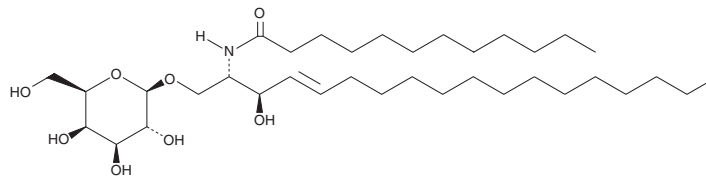
FW: 643.9

Purity: ≥95%

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

C12 Galactosylceramide (d18:1/12:0) is supplied as a solid. A stock solution may be made by dissolving the C12 galactosylceramide (d18:1/12:0) in the solvent of choice. C12 Galactosylceramide (d18:1/12:0) is soluble in organic solvents such as ethanol and methanol, which should be purged with an inert gas.

Description

C12 Galactosylceramide is a bioactive sphingolipid.¹⁻³ It inhibits IL-4 production by 53.84% in EL4 T cells when used at a concentration of 10 μM.¹ C12 Galactosylceramide reduces the growth of human papillomavirus type 16-associated tumors in mice and reduces tumor recurrence following surgical removal or chemotherapy.² It also reduces natural killer T cell activity, delays the onset of proteinuria, and improves survival in a mouse model of systemic lupus.³ As this product is derived from a natural source, there may be variations in the sphingoid backbone.

References

1. Park, J., Li, Q., Chang, Y.T., *et al.* Inhibitory activity of a ceramide library in interleukin-4 production from activated T cells. *Bioorg. Med. Chem.* **13(7)**, 2589-2595 (2005).
2. Simova, J., Indrova, M., Bieblova, J., *et al.* Therapy for minimal residual tumor disease: β-Galactosylceramide inhibits the growth of recurrent HPV16-associated neoplasms after surgery and chemotherapy. *Int. J. Cancer* **126(12)**, 2997-3004 (2010).
3. Morshed, S.R., Takahashi, T., Savage, P.B., *et al.* β-galactosylceramide alters invariant natural killer T cell function and is effective treatment for lupus. *J. Clin. Immunol.* **132(3)**, 321-333 (2009).

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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