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# Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!

## Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

## Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand


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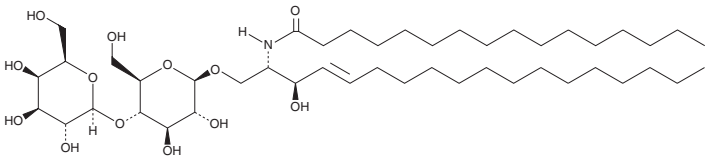
# PRODUCT INFORMATION

## C16 Lactosylceramide (d18:1/16:0)

*Item No. 24352*

**CAS Registry No.:** 4201-62-1
**Formal Name:** N-[(1S,2R,3E)-1-[[(4-O-β-D-galactopyranosyl-β-D-glucopyranosyl) oxy]methyl]-2-hydroxy-3-heptadecen-1-yl]-hexadecanamide
**Synonyms:** N-Hexadecanoyl Lactosylceramide, LacCer(d18:1/16:0), Lactosylceramide (d18:1/16:0), C16 Lactosyl(β) Ceramide (d18:1/16:0)
**MF:** $C_{46}H_{87}NO_{13}$
**FW:** 862.2
**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

C16 Lactosylceramide (d18:1/16:0) is supplied as a solid. A stock solution may be made by dissolving the C16 lactosylceramide (d18:1/16:0) in the solvent of choice. C16 Lactosylceramide (d18:1/16:0) is soluble in a 2:1:0.1 solution of chloroform:methanol:DI water.

### Description

C16 Lactosylceramide is an endogenous bioactive sphingolipid.[1] It forms membrane microdomains with Lyn kinase and the $\alpha_i$ subunits of inhibitory G protein-coupled receptors (GPCRs), suggesting a role in cell signaling. Plasma levels of C16 lactosylceramide are elevated in insulin-resistant cattle.[2] C16 Lactosylceramide is also upregulated in a mouse model of Niemann-Pick type C1 disease, a neurodegenerative cholesterol-sphingolipid lysosomal storage disorder.[3]

### References


1. Iwabuchi, K., Nakayama, H., Oizumi, A., *et al.* Role of ceramide from glycosphingolipids and its metabolites in immunological and inflammatory responses in humans. *Mediators Inflamm.* **120748**, (2015).
2. Rico, J.E., Bandaru, V.V., Dorskind, J.M., *et al.* Plasma ceramides are elevated in overweight Holstein dairy cows experiencing greater lipolysis and insulin resistance during the transition from late pregnancy to early lactation. *J. Dairy Sci.* **98(11)**, 7757-7770 (2015).
3. Praggastis, M., Tortelli, B., Zhang, J., *et al.* A murine Niemann-Pick C1 I1061T knock-in model recapitulates the pathological features of the most prevalent human disease allele. *J. Neurosci.* **35(21)**, 8091-8106 (2015).



**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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