

# Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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## Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

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- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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# PRODUCT INFORMATION



## C22 Glucosylceramide (d18:1/22:0)

Item No. 23210

CAS Registry No.: 119242-44-3

Formal Name: N-[(1S,2R,3E)-1-[(β-D-glucopyranosyloxy)methyl]-

2-hydroxy-3-heptadecen-1-yl]-docosanamide

Synonyms: N-C22:0-Glucocerebroside, GluCer(18:1/22:0),

Glucosylceramide (d18:1/22:0,

N-Docosanoyl-β-glucosylsphingosine,

N-Docosanoyl-glucopsychosine

MF:  $C_{46}H_{89}NO_{8}$ FW: 784.2 **Purity:** ≥98% Supplied as: A solid -20°C Storage: Stability: ≥2 years

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

#### **Laboratory Procedures**

C22 glucosylceramide (d18:1/22:0) is supplied as a solid. A stock solution may be made by dissolving the C22 glucosylceramide (d18:1/22:0) in the solvent of choice. C22 glucosylceramide (d18:1/22:0) is soluble in chloroform.

#### Description

C22 glucosylceramide is an endogenous glucosylceramide.<sup>1-3</sup> Glucosylceramides are major constituents of skin lipid membranes where they play a role in maintaining the water permeability barrier. They are precursors in the synthesis of lactosylceramide (Item No. 16983), as well as oligoglycolipids and gangliosides. Phospholipase A<sub>2</sub> (PLA<sub>2</sub>) type XIIA knockdown increases C22 glucosylceramide expression in rat brain.<sup>3</sup> It is also increased in the brain, but not the liver or spinal cord, of mice fed a methionine-restricted diet.<sup>2</sup> In human athletes, plasma levels of C22 glucosylceramide) increase during exercise and return to basal levels during recovery. This product contains C22 glucosylceramide isolated from bovine buttermilk.

#### References

- 1. Bergman, B.C., Brozinick, J.T., Strauss, A., et al. Serum sphingolipids: Relationships to insulin sensitivity and changes with exercise in humans. Am. J. Physiol. Endocrinol. Metab. 309(4), E398-E408 (2015).
- 2. Jové, M., Ayala, V., Ramírez-Núñez, O., et al. Specific lipidome signatures in central nervous system from methionine-restricted mice. J. Proteome Res. 12(6), 2679-2689 (2013).
- 3. Ee, S.-M., Lo, Y.-L., Shui, G., et al. Distribution of secretory phospholipase A<sub>2</sub> XIIA in the brain and its role in lipid metabolism and cognition. Mol. Neurobiol. 50(1), 60-75 (2014).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

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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