

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: C₄₆H₈₉NO₈

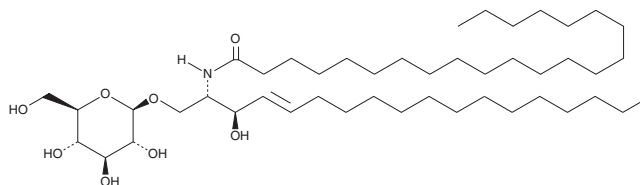
FW: 784.2

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

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, which should be purged with an inert gas. C22 glucosylceramide (d18:1/22:0) is soluble in chloroform.

Description

C22 glucosylceramide is an endogenous glucosylceramide.¹⁻³ 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 A₂ (PLA₂) type XIIA knockdown increases C22 glucosylceramide expression in rat brain.³ It is also increased in the brain, but not the liver or spinal cord, of mice fed a methionine-restricted diet.² In human athletes, plasma levels of C22 glucosylceramide increase during exercise and return to basal levels during recovery.¹ This product contains C22 glucosylceramide isolated from bovine buttermilk. As this product is derived from a natural source, there may be variations in the sphingoid backbone.

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 A₂ 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.

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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