

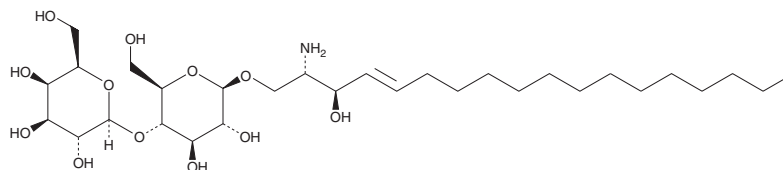
# PRODUCT INFORMATION



## Lactosylsphingosine (d18:1)

Item No. 24868

**CAS Registry No.:** 109785-20-8  
**Formal Name:** (2S,3R,4E)-2-amino-3-hydroxy-4-octadecen-1-yl 4-O-β-D-galactopyranosyl-β-D-glucopyranoside  
**Synonym:** Lactosyl Sphingosine, Lyso-Lactosylceramide  
**MF:** C<sub>30</sub>H<sub>57</sub>NO<sub>12</sub>  
**FW:** 623.8  
**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

Lactosylsphingosine (d18:1) is supplied as a solid. A stock solution may be made by dissolving the lactosylsphingosine (d18:1) in the solvent of choice. Lactosylsphingosine (d18:1) is soluble in a 2:1:0.1 solution of chloroform:methanol:DI water. We do not recommend storing the aqueous solution for more than one day.

### Description

Lactosylsphingosine is a bioactive sphingolipid and a form of lactosylceramide (Item No. 16983) that is lacking the fatty acyl group. Lactosylsphingosine (1-50 μM) reduces viability of human neutrophils in a concentration-dependent manner.<sup>1</sup> Unlike lactosylceramide, lactosylsphingosine has no effect on protein synthesis and cell proliferation in cardiomyocytes.<sup>2</sup> Lactosylsphingosine is a precursor in the synthesis of lyso-ganglioside G<sub>M3</sub>.<sup>3</sup> As this product is derived from a natural source, there may be variations in the sphingoid backbone.

### References

1. Fiore, S., Nicolaou, K.C., Caulfield, T., *et al.* Evaluation of synthetic sphingosine, lysosphingolipids and glycosphingolipids as inhibitors of functional responses of human neutrophils. *Biochem. J.* **266**(1), 25-31 (1990).
2. Mishra, S. and Chatterjee, S. Lactosylceramide promotes hypertrophy through ROS generation and activation of ERK1/2 in cardiomyocytes. *Glycobiology* **24**(6), 518-531 (2014).
3. Thon, V., Lau, K., Yu, H., *et al.* PmST2: A novel *Pasteurella multocida* glycolipid α2-3-sialyltransferase. *Glycobiology* **21**(9), 1206-1216 (2011).

#### 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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