

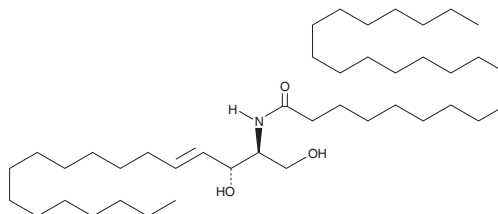
# PRODUCT INFORMATION



## C24 Ceramide (d18:1/24:0)

Item No. 62535

**CAS Registry No.:** 34435-05-7  
**Formal Name:** N-[(1S,2R,3E)-2-hydroxy-1-(hydroxymethyl)-3-heptadecen-1-yl]-tetracosanamide  
**Synonyms:** C24 Ceramide, Ceramide (d18:1/24:0), Cer(d18:1/24:0), Lignoceric Ceramide, N-Lignoceroyl-D-erythro-Sphingosine  
**MF:** C<sub>42</sub>H<sub>83</sub>NO<sub>3</sub>  
**FW:** 650.1  
**Purity:** ≥98%  
**Supplied as:** A crystalline 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

C24 Ceramide (d18:1/24:0) is supplied as a crystalline solid. A stock solution may be made by dissolving the C24 ceramide (d18:1/24:0) in the solvent of choice. C24 Ceramide (d18:1/24:0) is slightly soluble in chloroform (heated) and methanol (heated), which should be purged with an inert gas.

### Description

This ceramide has a sphingosine backbone of 18 carbons, but it may contain up to 10% which has a 20 carbon backbone. This is a natural characteristic of sphingosine and will not affect biological activity. Production of ceramide occurs upon hydrolysis of sphingomyelin by a specific isoform of PLC, appropriately named sphingomyelinase.<sup>1</sup> C24 Ceramide (d18:1/24:0) is one of the most abundant naturally occurring ceramides.<sup>2-4</sup> Ceramides mediate many diverse biological activities, as has been demonstrated in studies utilizing cell-permeable ceramide analogs. A few of the processes regulated by ceramides include apoptosis, cell differentiation, proliferation of smooth muscle cells, and inhibition of the mitochondrial respiratory chain.<sup>5-7</sup>

### References

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2. Gu, Q., Kerwin, J.L., Watts, J.D., et al. *Anal. Biochem.* **244**, 347-356 (1997).
3. Clayton, R.B., Cooper, J.M., Curstedt, T., et al. *J. Lipid Res.* **15**, 557-562 (1974).
4. Krivit, W. and Hammarström, S. *J. Lipid Res.* **13**, 525-530 (1972).
5. Testi, R. *Trends Biochem. Sci.* **21**, 468-471 (1996).
6. Augé, N., Andrieu, N., Nègre-Salvayre, A., et al. *J. Biol. Chem.* **271**, 19251-19255 (1996).
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#### 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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