



# SZABO SCANDIC

Part of Europa Biosite

## 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

### SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

[mail@szabo-scandic.com](mailto:mail@szabo-scandic.com)

[www.szabo-scandic.com](http://www.szabo-scandic.com)

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

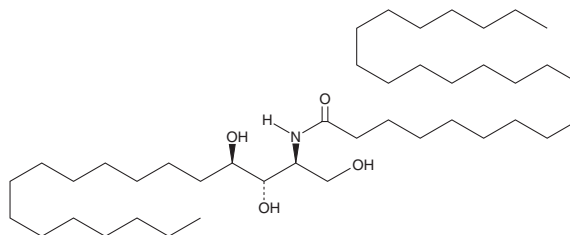
# PRODUCT INFORMATION



## C24 Phytoceramide (t18:0/24:0)

Item No. 22827

**CAS Registry No.:** 34437-74-6  
**Formal Name:** N-[(1S,2S,3R)-2,3-dihydroxy-1-(hydroxymethyl)heptadecyl]-tetracosanamide  
**Synonyms:** Ceramide (t18:0/24:0), Cer(t18:0/24:0), C24:0 Phytoceramide, N-Lignoceroyl Phytosphingosine, N-Tetracosanoyl Phytosphingosine  
**MF:** C<sub>42</sub>H<sub>85</sub>NO<sub>4</sub>  
**FW:** 668.1  
**Purity:** ≥98%  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥2 years



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

### Laboratory Procedures

C24 Phytoceramide (t18:0/24:0) is supplied as a solid. A stock solution may be made by dissolving the C24 phytoceramide (t18:0/24:0) in the solvent of choice. C24 Phytoceramide (t18:0/24:0) is soluble in a 5:1 (warm) solution of chloroform:methanol.

### Description

C24 Phytoceramide (t18:0/24:0) is a phytoceramide, which is a family of sphingolipids found in the intestine, kidney, and extracellular spaces of the stratum corneum of the mammalian epidermis.<sup>1-3</sup> C24 Phytoceramide (t18:0/24:0) is composed of a phytosphingosine (Item No. 20217) backbone amine-linked to a C24 fatty acid chain. It has been used with other ceramides to create stratum corneum substitutes to study percutaneous penetration and psoriasis *in vitro*.<sup>4,5</sup> In a stratum corneum model of healthy skin, the incorporation of long-chain-containing phytoceramides, such as C24 phytoceramide (t18:0/24:0), increases permeability of the membrane in comparison with incorporation of dihydroceramides.<sup>6</sup>

### References

1. Crossman, M.W., and Hirschberg, C.B. Biosynthesis of phytosphingosine by the rat. *J. Biol. Chem.* **252**(16), 5815-5819 (1977).
2. Omae, F., Miyazaki, M., Enomoto, A., *et al.* DES2 protein is responsible for phytoceramide biosynthesis in the mouse small intestine. *Biochem J.* **379**(Pt. 3), 687-695 (2004).
3. Mizutani, Y., Kihara, A., and Igarashi, Y. Identification of the human sphingolipid C4-hydroxylase, hDES2, and its up-regulation during keratinocyte differentiation. *FEBS Lett.* **563**(1-3), 93-97 (2004).
4. de Jager, M., Groenink, W., van der Spek, J., *et al.* Preparation and characterization of a stratum corneum substitute for *in vitro* percutaneous penetration studies. *Biochim Biophys. Acta.* **1758**(5), 636-644 (2006).
5. Basse, L.H., Groen, D., and Bouwstra, J.A. Permeability and lipid organization of a novel psoriasis stratum corneum substitute. *Int. J. Pharm.* **457**(1), 275-282 (2013).
6. Školová, B., Kováčik, A., Tesař, O., *et al.* Phytosphingosine, sphingosine and dihydrosphingosine ceramides in model skin lipid membranes: Permeability and biophysics. *Biochim Biophys. Acta.* **1859**(5), 824-834 (2017).

#### 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.

#### WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 09/23/2019

#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897

[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM