



# 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



## C6 NBD Sphingomyelin (d18:1/6:0)

Item No. 24328

**CAS Registry No.:** 94885-04-8  
**Formal Name:** (7S)-4-hydroxy-7-[(1R,2E)-1-hydroxy-2-hexadecen-1-yl]-N,N,N-trimethyl-14-[(7-nitro-2,1,3-benzoxadiazol-4-yl)amino]-9-oxo-3,5-dioxo-8-aza-4-phosphatetradecan-1-aminium, 4-oxide inner salt

**Synonyms:** N-hexanoyl-NBD Sphingosylphosphorylcholine, NBD SM(d18:1/6:0), NBD Sphingomyelin (d18:1/6:0)

**MF:** C<sub>35</sub>H<sub>61</sub>N<sub>6</sub>O<sub>9</sub>P

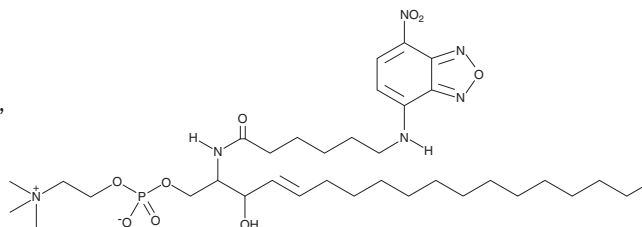
**FW:** 740.9

**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

C6 NBD Sphingomyelin (d18:1/6:0) is supplied as a solid. A stock solution may be made by dissolving the C6 NBD sphingomyelin (d18:1/6:0) in the solvent of choice. C6 NBD Sphingomyelin (d18:1/6:0) is soluble in organic solvents such as chloroform, methanol, and ethanol, which should be purged with an inert gas.

### Description

C6 NBD sphingomyelin is a biologically active derivative of sphingomyelin (Item Nos. 22674 | 24345) that is tagged with a fluorescent C6 nitrobenzoxadiazole (C6 NBD; Item No. 18871) group. C6 NBD sphingomyelin has been used to study the metabolism and transport of sphingomyelins.<sup>1,2</sup> It is degraded in the plasma membrane to C6 NBD ceramide (Item No. 62527) by neutral sphingomyelinase, an enzyme with three-fold higher activity in undifferentiated HT29 cells than in differentiated cells.<sup>1</sup> Unlike endogenous long-chain sphingomyelin and C6 sphingomyelin, C6 NBD sphingomyelin can be transported to the cell surface even in the presence of the vesicular transport inhibitor brefeldin A (Item No. 11861), but this transport can be blocked by multidrug resistance protein inhibitors in CHO cells.<sup>2</sup> This product is a mixture of the *D-erythro* and *L-threo* isomers of sphingomyelin.

### References

1. Kok, J.W., Babia, T., Klappe, K., *et al.* Fluorescent, short-chain C<sub>6</sub>-NBD-sphingomyelin, but not C<sub>6</sub>-NBD-glucosylceramide, is subject to extensive degradation in the plasma membrane: Implications for signal transduction related to cell differentiation. *Biochem. J.* **309**(Pt 3), 905-912 (1995).
2. van Helvoort, A., Giudici, M.L., Thielemans, M., *et al.* Transport of sphingomyelin to the cell surface is inhibited by brefeldin A and in mitosis, where C<sub>6</sub>-NBD-sphingomyelin is translocated across the plasma membrane by a multidrug transporter activity. *J. Cell Sci.* **110** (Pt 1), 75-83 (1997).

#### 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, 05/24/2018

#### 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