

PRODUCT INFORMATION



C12 NBD Sphingomyelin (d18:1/12:0)

Item No. 24329

Formal Name: (E)-3-hydroxy-2-(12-((7-nitrobenzo[c][1,2,5]oxadiazol-4-yl)amino)dodecanamido)octadec-4-en-1-yl (2-(trimethylammonio)ethyl) phosphate

Synonyms: NBD SM(d18:1/12:0), NBD Sphingomyelin (d18:1/12:0), N-dodecanoyl-NBD Sphingosylphosphorylcholine

MF: C₄₁H₇₃N₆O₉P

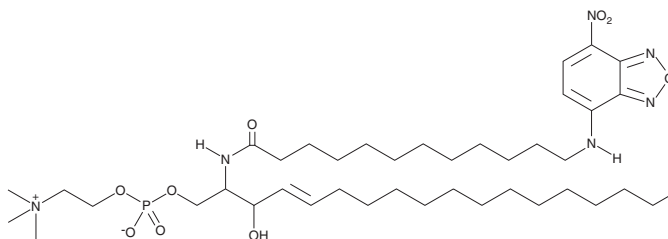
FW: 825.0

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

C12 NBD sphingomyelin (d18:1/12:0) is supplied as a solid. A stock solution may be made by dissolving the C12 NBD sphingomyelin (d18:1/12:0) in the solvent of choice. C12 NBD sphingomyelin (d18:1/12:0) is soluble in methanol and a 2:1 solution of chloroform:methanol.

Description

C12 NBD sphingomyelin is a biologically active derivative of sphingomyelin (Item Nos. 22674 | 24345) that is tagged with a fluorescent C12 nitrobenzoxadiazole (C12 NBD) group. C12 NBD sphingomyelin has been used to study the metabolism and transport of sphingomyelins.^{1,2} It is hydrolyzed by sphingomyelinase to C12 NBD ceramide (Item No. 10007958).¹ This product is a mixture of the *D-erythro* and *L-threo* isomers of C12 NBD sphingomyelin. As this product is derived from a natural source, there may be variations in the sphingoid backbone.

References

1. Loidl, A., Claus, R., Deigner, H.P., *et al.* High-precision fluorescence assay for sphingomyelinase activity of isolated enzymes and cell lysates. *J. Lipid Res.* **43**(5), 815-823 (2002).
2. Nakagawa, T., Tani, M., Kita, K., *et al.* Preparation of fluorescence-labeled GM1 and sphingomyelin by the reverse hydrolysis reaction of sphingolipid ceramide N-deacylase as substrates for assay of sphingolipid-degrading enzymes and for detection of sphingolipid-binding proteins. *J. Biochem.* **126**(3), 601-611 (1999).

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, 12/06/2022

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