

# PRODUCT INFORMATION



## C12 NBD Globotriaosylceramide (C18:1/12:0)

Item No. 24628

**Formal Name:** N-((2S,3R,E)-1-(((2R,3R,4R,5S,6R)-5-(((2S,3R,4R,5R,6R)-3,4-dihydroxy-6-(hydroxymethyl)-5-(((2R,3R,4S,5R,6R)-3,4,5-trihydroxy-6-(hydroxymethyl) tetrahydro-2H-pyran-2-yl)oxy)tetrahydro-2H-pyran-2-yl)oxy)-3,4-dihydroxy-6-(hydroxymethyl)tetrahydro-2H-pyran-2-yl)oxy)-3-hydroxyoctadec-4-en-2-yl)-12-((7-nitrobenzo[c][1,2,5]oxadiazol-4-yl)amino) dodecanamide

**Synonyms:** NBD Gal $\alpha$ 1-4Gal $\beta$ 1-4Glc $\beta$ -Cer(d18:1/12:0), NBD Gb3(d18:1/12:0), NBD Globotriaosylceramide (C18:1/12:0), N-dodecanoyl-NBD-Ceramide Trihexoside

**MF:** C<sub>54</sub>H<sub>91</sub>N<sub>5</sub>O<sub>21</sub>

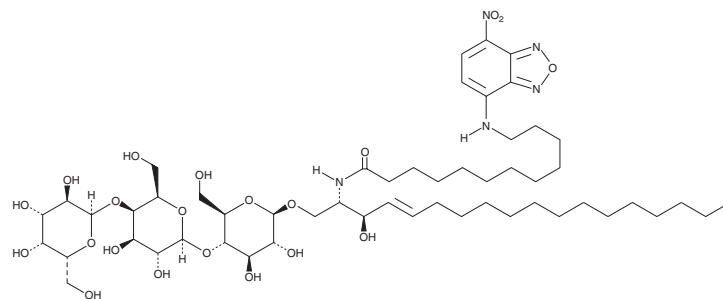
**FW:** 1,146.3

**Purity:**  $\geq$ 98%

**Supplied as:** A solid

**Storage:** -20°C

**Stability:**  $\geq$ 4 years



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

### Laboratory Procedures

C12 NBD globotriaosylceramide (C18:1/12:0) is supplied as a solid. A stock solution may be made by dissolving the C12 NBD globotriaosylceramide (C18:1/12:0) in the solvent of choice, which should be purged with an inert gas. C12 NBD globotriaosylceramide (C18:1/12:0) is soluble in DMSO, methanol (warmed), and a 2:1 solution of chloroform:methanol.

### Description

C12 NBD globotriaosylceramide is a biologically active derivative of globotriaosylceramide that is tagged with a fluorescent C12 nitrobenzoxadiazole (C12 NBD).<sup>1</sup> C12 NBD globotriaosylceramide accumulates in human umbilical vascular endothelial cells (HUVECs) treated with the  $\alpha$ -galactosidase A inhibitor 1-deoxygalactonojirimycin (DGJ; Item No. 17179) in a concentration-dependent manner, an effect that can be reversed by overexpression of  $\alpha$ -galactosidase A. As this product is derived from a natural source, there may be variations in the sphingoid backbone.

### Reference

1. Hsu, J., Serrano, D., Bhowmick, T., *et al.* Enhanced endothelial delivery and biochemical effects of  $\alpha$ -galactosidase by ICAM-1-targeted nanocarriers for Fabry disease. *J. Control. Release.* **149(3)**, 323-331 (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.

#### WARRANTY AND LIMITATION OF REMEDY

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