

# PRODUCT INFORMATION



## C2 Adamantanyl Globotriaosylceramide (d18:1/2:0)

Item No. 24879

CAS Registry No.: 261155-87-7

Formal Name: N-[(1S,2R,3E)-1-[[[O- $\alpha$ -D-galactopyranosyl-(1 $\rightarrow$ 4)-O- $\beta$ -D-galactopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -D-glucopyranosyl]oxy]methyl]-2-hydroxy-3-heptadecen-1-yl]-tricyclo[3.3.1.1<sup>3,7</sup>]decane-1-acetamide

Synonyms: AdaGb<sub>3</sub>, Adamantyl Gb<sub>3</sub>, C2 Adamantanyl Ceramide Trihexoside (d18:1/2:0)

MF: C<sub>48</sub>H<sub>83</sub>NO<sub>18</sub>

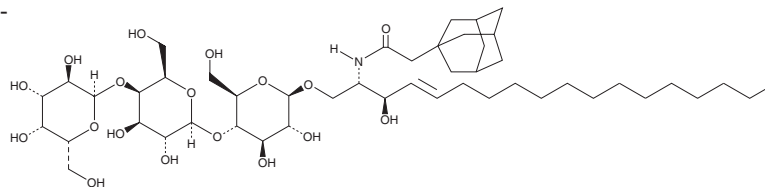
FW: 962.2

Purity:  $\geq$ 98%

Supplied as: A solid

Storage: -20°C

Stability:  $\geq$ 2 years



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

### Laboratory Procedures

C2 Adamantanyl globotriaosylceramide (d18:1/2:0) is supplied as a solid. A stock solution may be made by dissolving the C2 adamantanyl globotriaosylceramide (d18:1/2:0) in the solvent of choice. C2 Adamantanyl globotriaosylceramide (d18:1/2:0) is soluble in the organic solvents methanol, DMF and a 2:1 solution of chloroform:methanol.

### Description

C2 Adamantanyl globotriaosylceramide (AdaGb<sub>3</sub>) is a bioactive sphingolipid and water-soluble form of globotriaosylceramide (Item Nos. 24870 | 24871 | 24872) that contains an adamantanyl group in place of the fatty acyl chain.<sup>1</sup> It inhibits Vero toxin binding to globotriaosylceramide in an ELISA assay when used at a concentration of 10  $\mu$ M. AdaGb<sub>3</sub> decreases cell surface expression of P-glycoprotein (P-gp) and reduces efflux of rhodamine 123 (Item No. 16672) in MDCK cells.<sup>2</sup> It also increases apical-to-basal transport of vinblastine (Item No. 11762) in human intestinal C2BBE1 cells.

### References

1. Mylvaganam, M., Hansen, H.C., Binnington, B., *et al.* Interaction of the verotoxin 1B subunit with soluble aminodeoxy analogues of globotriaosyl ceramides. *Biochem J.* **368**(Pt 3), 769-776 (2002).
2. De Rosa, M.F., Ackerley, C., Wang, B., *et al.* Inhibition of multidrug resistance by adamantylGb<sub>3</sub>, a globotriaosylceramide analog. *J. Biol. Chem.* **283**(8), 4501-4511 (2008).

#### 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, 05/12/2020

#### 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