

PRODUCT INFORMATION



GCS-12

Item No. 42986

Formal Name: N-((2S,3S,4R)-3,4-dihydroxy-1-(((2S,3R,4S,5R,6R)-3,4,5-trihydroxy-6-(hydroxymethyl)tetrahydro-2H-pyran-2-yl)oxy)octadecan-2-yl)-12-(dodecylsulfonamido) dodecanamide

MF: C₄₈H₉₆N₂O₁₁S

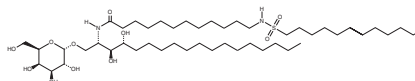
FW: 909.4

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

GCS-12 is supplied as a solid. A stock solution may be made by dissolving the GCS-12 in the solvent of choice, which should be purged with an inert gas. GCS-12 is slightly soluble (0.1-1 mg/ml) in chloroform and methanol.

Description

GCS-12 is a CD1d ligand, natural killer T (NKT) cell activator, and derivative of α-galactosylceramide (α-GalCer) that contains a sulfonamide at carbon 12 of the ceramide N-acyl chain.¹ It induces NKT cell-mediated dendritic cell activation in mice. Liposomal administration of GSC-12 (2.33 nmol/animal) increases blood Ifn-γ and IL-4 levels by 7- and 5-fold in mice, respectively. It also reduces the number of metastatic tumor nodules in a B16/F10 murine model of melanoma when administered in liposomes at a dose of 0.58 nmol/animal.

Reference

1. Wen, Y., Ding, D., Luo, M.-Q., *et al.* Rationally designed highly potent NKT cell agonists with different cytokine selectivity through hydrogen-bond interaction. *J. Med. Chem.* **67**(15), 12819-12834 (2024).

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, 04/24/2025

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