C2 Ceramide

Cell-permeable ceramide analog

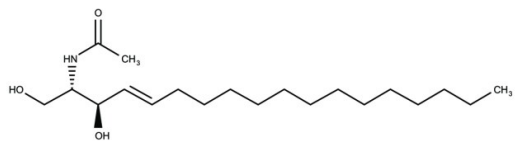
N-Acetylsphingosine is a biologically active, cell-permeable ceramide analog. It inhibits cell proliferation and induces monocytic differentiation of HL-60 cells and induces apoptosis. It stimulates protein phosphatase 2A4, activates MAP kinase and SAP kinase and induces PKCδ and ε translocation. Physiological levels of C2 ceramide, produced by the action of a PAF:sphingosine CoA-independent transacetylase, have been detected in HL-60 cells.

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Ordering Information Order Online »

BML-SL100-0005	5mg
BML-SL100-0025	25mg

Manuals, SDS & CofA View Online »


O
HN
CH3
HO
OH
CH3

Handling & Storage

Use/Stability	As indicated on product label or CoA when stored as recommended. Stable for at least 1 year after receipt when stored, as supplied, at -20°C. Stock solutions are stable for up to 3 months at -20°C.
Long Term Storage	-20°C
Shipping	Ambient Temperature

Regulatory Status

RUO - Research Use Only

Product Details

Alternative Name	N-Acetyl-D-erythro-sphingosine
Appearance	White solid.
CAS	3102-57-6
Couple Target	Jnk, MAPK, Serine/threonine-protein phosphatase
Couple Type	Activator
Formula	$C_{20}H_{39}NO_3$
MW	341.5
Purity	≥98% (TLC)
Solubility	Soluble in 100% ethanol (>25mg/ml) or DMSO (>50mg/ml).

Technical Info / Product Notes

C2 ceramide may precipitate from aqueous media, particularly those lacking serum or serum albumin, at concentrations ~20µM or higher. To avoid this problem, a 1:1 complex of C2 Ceramide with BSA may be prepared as follows: Dissolve C2 ceramide to 200mM (68.3mg/ml) in anhydrous DMSO. Dissolve fatty acid-free BSA in water to 66mg/ml (1mM). Dilute the ceramide/DMSO stock 200-fold into the BSA solution, with constant stirring. A precipitate will form at first, but will dissolve after ~30 minutes of stirring at room temperature. Alternatively, a solution of C2 Ceramide/BSA may be prepared directly, without making a DMSO stock: 1) prepare a 20% w/v stock of BSA in water (3mM); 2) use the BSA stock to dissolve the solid C2 Ceramide at 1.02mg/ml (3mM). Complete dissolution of the ceramide may require more than 1 hour of stirring at room temperature.

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