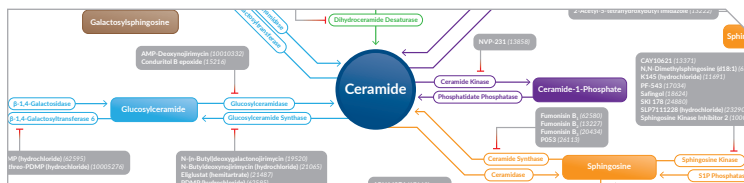


# Sphingolipids

## Standards and Additional Research Tools



Sphingolipids reside in the outer leaflet of the cell membrane where they modulate cell-cell interactions and can regulate differentiation, proliferation, and programmed cell death. Ceramide is the intermediate in the formation of multiple types of sphingolipids that mediate a wide range of biological activities. To help you study distinct aspects of this important lipid signaling pathway, Cayman carries many different sphingolipid standards as well as inhibitors for the various enzymes driving key events in sphingolipid metabolism.



Primary Pathways for Sphingolipid Synthesis wall chart **INSIDE!**

## Sphingolipid Standards

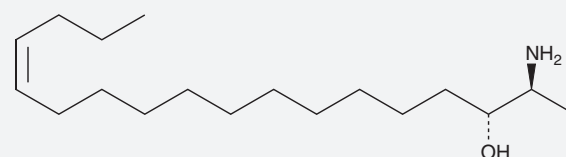
Item No.	Product Name	Summary	Purity
62525	C6 Ceramide (d18:1/6:0)	A cell-permeable analog of naturally occurring ceramides	≥98%
10681	C16 Ceramide (d18:1/16:0)	A bioactive sphingolipid	≥98%
22542	C16 Ceramide-1-phosphate (d18:1/16:0) (ammonium salt)	A long-chain ceramide-1-phosphate	≥98%
22788	C18 Ceramide-d <sub>7</sub> (d18:1-d <sub>7</sub> /18:0)	An internal standard for the quantification of C18 ceramide	≥99%
22789	C24 Ceramide-d <sub>7</sub> (d18:1-d <sub>7</sub> /24:0)	An internal standard for the quantification of lignoceric ceramide	≥99%
22790	C24:1 Ceramide-d <sub>7</sub> (d18:1-d <sub>7</sub> /24:1(15Z))	An internal standard for the quantification of nervonic ceramide	≥99%
13511	1-Deoxysphinganine (m18:0)	An atypical sphingolipid	≥95%
24515	1-Deoxysphingosine (m18:1(14Z))	An atypical sphingolipid	≥98%
62575	N,N-Dimethylsphingosine (d18:1)	A metabolite of sphingosine	≥98%
15588	Ganglioside G <sub>T1b</sub> Mixture (sodium salt)	A mixture of ganglioside G <sub>T1b</sub>	≥98%
24621	C16 Glucosylceramide-d <sub>3</sub> (d18:1/16:0-d <sub>3</sub> )	An internal standard for the quantification of C16 glucosylceramide	≥99%
10007945	Sphinganine (d18:0)	A sphingolipid pathway intermediate	≥98%
10007946	C16 Sphingomyelin (d18:1/16:0)	A C16 sphingomyelin	≥98%
10007907	Sphingosine (d18:1)	A pharmacological tool to probe the activity of protein kinase C	≥98%
62570	Sphingosine-1-phosphate (d18:1)	A signaling sphingolipid	≥98%

View a complete list of more than 250 sphingolipids at [www.caymanchem.com](http://www.caymanchem.com)

## Atypical Sphingolipids

Cayman scientists have synthesized deoxysphingolipids, which lack the typical C1 hydroxyl group of regular sphingoid bases and are associated with cellular toxicity.

Learn more at [www.caymanchem.com/news/deoxysphingolipids](http://www.caymanchem.com/news/deoxysphingolipids)

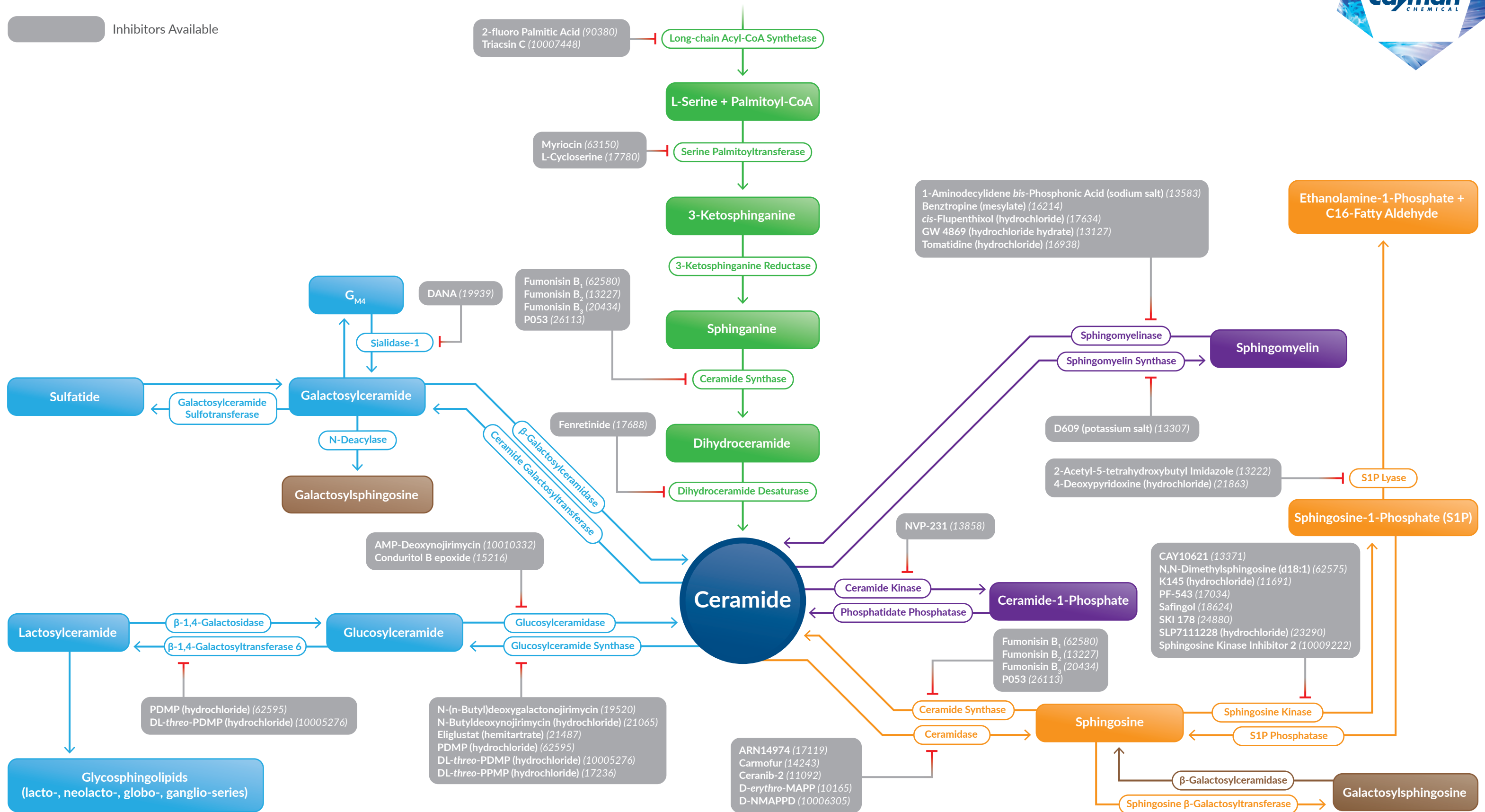


1-Deoxysphingosine (m18:1(14Z)) - Item No. 24515

# PRIMARY PATHWAYS FOR SPHINGOLIPID SYNTHESIS



Inhibitors Available



View a complete list of small molecule inhibitors at [www.caymanchem.com](http://www.caymanchem.com)

## Assay, Antibodies, and Proteins

Item No.	Product Name	Summary
10009928	Sphingomyelin Colorimetric Assay Kit	Measure sphingomyelin in plasma and serum
10005260	Serine Palmitoyltransferase Polyclonal Antibody	<b>Host:</b> Rabbit · <b>Applications:</b> IHC, WB
10006822	Sphingosine Kinase 1 Polyclonal Antibody	<b>Host:</b> Rabbit · <b>Applications:</b> ICC, WB
10012201	Sphingosine Kinase 1 Polyclonal FITC Antibody	<b>Host:</b> Rabbit · <b>Applications:</b> FC, WB
10348	Sphingosine Kinase 1 (human recombinant)	Active, N-terminal His-tagged protein expressed in Sf9 cells
30191	Sphingosine Kinase 2 (human, recombinant)	Full length, N-terminal His-tagged protein expressed in insect cells

## Fluorescent Probes

Item No.	Product Name	Summary
22830	C6 NBD Galactosylceramide (d18:1/6:0)	Fluorescent galactosylceramide derivative used to study intracellular localization and metabolism
23209	C6 NBD Glucosylceramide (d18:1/6:0)	Fluorescent glucosylceramide derivative used to study metabolism and internalization
22828	C6 NBD Lactosylceramide (d18:1/6:0)	Fluorescent lactosylceramides derivative used to study effects of P-glycoprotein inhibition
24328	C6 NBD Sphingomyelin (d18:1/6:0)	Fluorescent sphingomyelin derivative used to study metabolism and transport
10007958	C12 NBD Ceramide (d18:1/12:0)	Fluorescent ceramide analog used to measure alkaline and neutral ceramidase activity
10008097	C12 NBD dihydro Ceramide (d18:0/12:0)	Fluorescent ceramide analog that contains a saturated bond in the C-4/C-5 position
22851	C12 NBD Galactosylceramide (d18:1/12:0)	Fluorescent galactosylceramide derivative used as an internal standard to detect products of C12 NBD ceramide glycosylation
24329	C12 NBD Sphingomyelin (d18:1/12:0)	Fluorescent sphingomyelin derivative used to study metabolism and transport
20948	4-Methylumbelliferyl- $\beta$ -D-Glucopyranoside	Fluorogenic substrate of $\beta$ -glucosidase and $\beta$ -glucocerebrosidase (glucosylceramidase)

## Sphingosine-1-Phosphate Receptor Agonists/Antagonists

Sphingosine can be phosphorylated to form sphingosine-1-phosphate (S1P), the ligand for a family of S1P receptors.

Item No.	Product Name	Summary
10005033	CAY10444	Selective S1P <sub>3</sub> receptor antagonist
16925	CYM 5442	Selective S1P <sub>1</sub> receptor agonist (EC <sub>50</sub> = 1.35 nM)
14667	CYM 50308	Selective S1P <sub>4</sub> receptor agonist (EC <sub>50</sub> = 56 nM)
11975	Fingolimod	Orally bioavailable S1P receptor modulator
10006292	Fingolimod (hydrochloride)	Immune modulator that targets S1P receptors <b>Also available:</b> azido-FTY720 (Item No. 10008612) and FTY720 Phosphate (Item No. 10008639)
10009458	JTE-013	Selective S1P <sub>2</sub> receptor antagonist (IC <sub>50</sub> s = 17 and 22 nM for human and rat, respectively)
10006440	SEW2871	Potent, selective S1P <sub>1</sub> receptor agonist
10010992	W123	S1P <sub>1</sub> receptor antagonist (K <sub>i</sub> = 0.69 $\mu$ M)
10009109	W146 (trifluoroacetate salt)	Selective S1P <sub>1</sub> receptor antagonist (K <sub>i</sub> = 77 nM)

## S1P Antibodies

Item No.	Product Name	Summary
10005228	S1P <sub>1</sub> Polyclonal Antibody	<b>Host:</b> Rabbit · <b>Applications:</b> IF, IHC, WB
20208	S1P <sub>1</sub> Polyclonal Antibody (protein A-purified)	<b>Host:</b> Rabbit · <b>Application:</b> WB
10006373	S1P <sub>3</sub> Polyclonal Antibody	<b>Host:</b> Rabbit · <b>Applications:</b> ICC, WB
13489	S1P <sub>4</sub> Polyclonal Antibody	<b>Host:</b> Rabbit · <b>Applications:</b> ICC, IF, WB
13490	S1P <sub>5</sub> Polyclonal Antibody	<b>Host:</b> Rabbit · <b>Applications:</b> IHC, WB