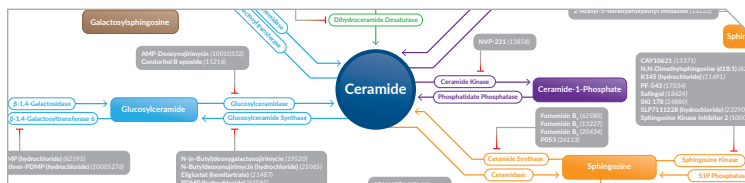


# Sphingolipids

## 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

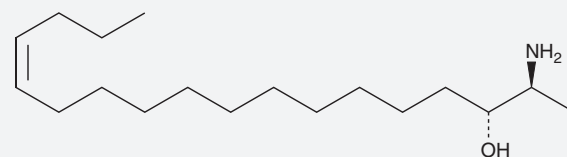
| Item No. | Product Name                                                     | Summary                                                             | Purity |
|----------|------------------------------------------------------------------|---------------------------------------------------------------------|--------|
| 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)

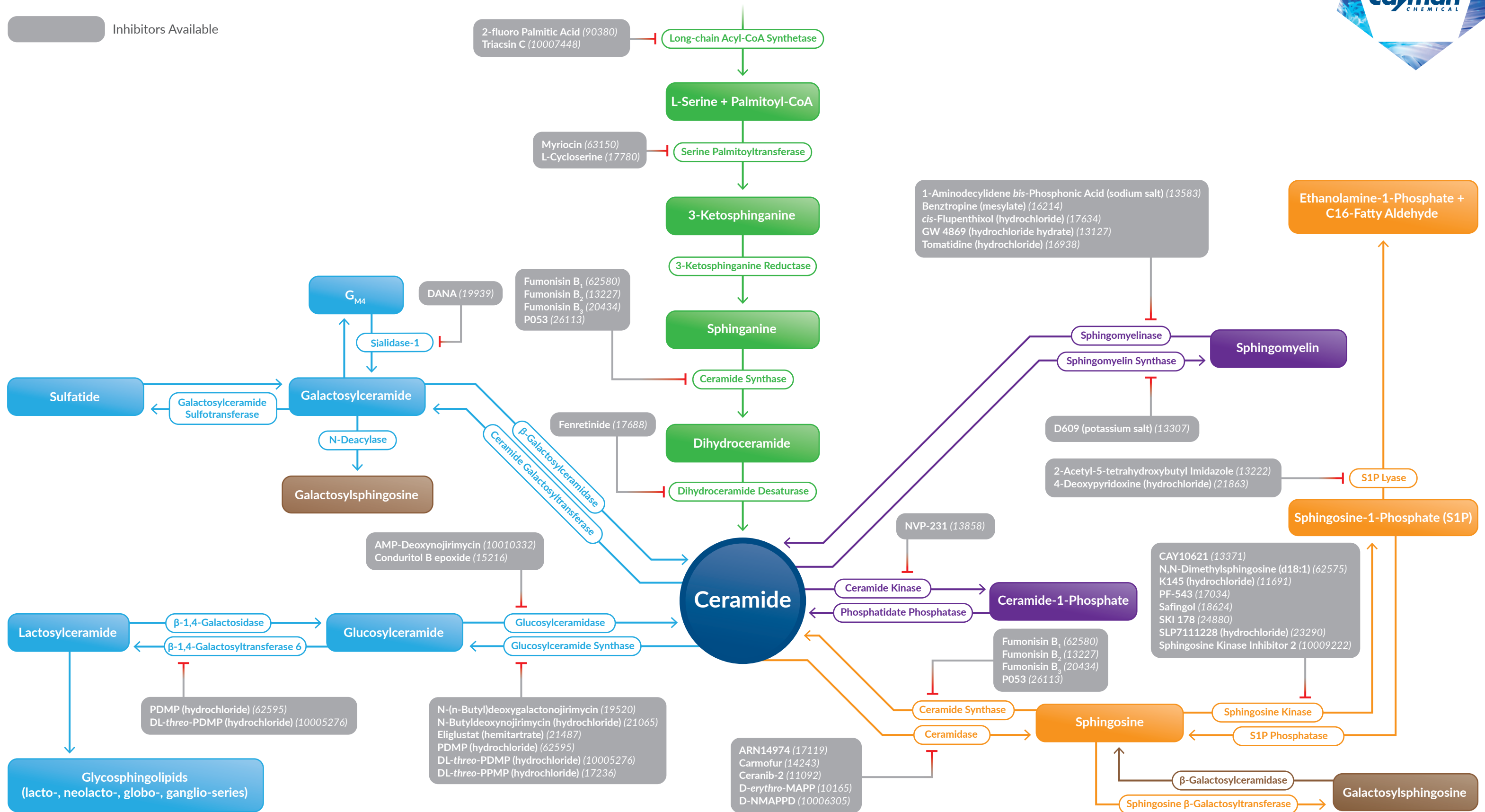


1-Deoxysphingosine (m18:1(14Z)) - Item No. 24515

# 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-β-D-Glucopyranoside | Fluorogenic substrate of β-glucosidase and β-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<br><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 μM)                                                                                 |
| 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     |

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In Italy: Vinci-Biochem Srl  
 Contatto diretto: tel. 0571 568 147  
 vb@vincibiochem.it  
 www.vincibiochem.it