MATREYA

About Matreya LLC

Matreya aims to develop, manufacture and deliver products of the highest value to our customers. We pride ourselves on achieving the best quality using state-of-the-art techniques, resulting in resolutions typically greater than 98%. We strive for rapid delivery. 95+% of our products are shipped within 24 hours of receipt of an order. Within the area of sphingosines and glycolipids, we have earned a reputation as the preferred problem solver and technology leader.

Matreya Products for Life Science Research

We offer one of the widest selections of ceramides for intracellular signaling research available. We stock antibodies to glycosphingolipids as well as inhibitors of enzymes involved in glycosphingolipid metabolism.

Our products provide the valuable tools necessary for the study of the cell membrane and its structure, growth regulators in the cellular metabolism, and intracellular mediators.

We are able to make our products better and better with the latest technology in Chromatography and Mass Spectrometry.

We are proud to offer our products as a valuable tool for your life science research needs.

Matreya Products for Microbiology Research

Matreya stocks unusual fatty acid standards produced by bacteria that are useful for culture characterization.

Matreya Products for the Food and Agriculture Industries

Many of Matreya's fatty acid products have been industry standards for years. Our fatty acids and methyl esters are used as standards in analysis and quality control.

Custom Preparations

Matreya's experience in chemical synthesis and the extraction and purification of natural products allows us to produce custom preparations with the same high quality and purity as the products listed in our catalog. Depending on the complexity of the molecule, a 30% nonrefundable deposit may be required prior to synthesis. The deposit will be deducted from the final invoice upon completion of the project. Delivery will be 4 to 12 weeks after receipt of an order.

If you can't find a product in the catalog, please check the index, where common synonyms for our products are listed.

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All chemicals listed in this catalog are for research only. They are not intended for drug or diagnostic use, human consumption or to be used in food or food additives. Matreya assumes no liability for any use of these chemicals by the end user. We believe the information in this catalog, offered in good faith, is accurate.

Limited Warranty: All Matreya Products, except those specifically exempted, are warranted (for 30 days) to be free of defects in materials and workmanship, if properly stored. Any replacements required as a result of such defects will be made without charge provided that such defective products are returned with a written explanation. Please request a Returned Goods Authorization before returning products under this warranty.

Technical Service

Our technical service department may be contacted by telephone at 800-342-3595 (US), 814-355-1030 (world-wide) or by e-mail at techservice@matreya.com.

Natural Products

Some of our glycolipids are extracted from natural sources. These products have a normal heterogeneity in their lipid components, particularly in the fatty acids. Variations include carbon chain length as well as the presence or absence of 2-hydroxy fatty acids. Products based on sphingosine may contain longer chain sphingoid bases as well as chains with multiple double bonds. This heterogeneity may result in additional spots shown on TLC plates or multiple peaks in LC analyses. We have listed the typical fatty acid compositions of our natural products in Table III.

Storage

Catalog items in unopened containers are stable for at least one year when stored under the conditions indicated in the catalog listing. Items containing unsaturated fatty acids are subject to oxidation and should be stored in a solution of organic solvents or under argon. Glycolipids and phospholipids should not be stored in aqueous solutions due to potential hydrolysis.

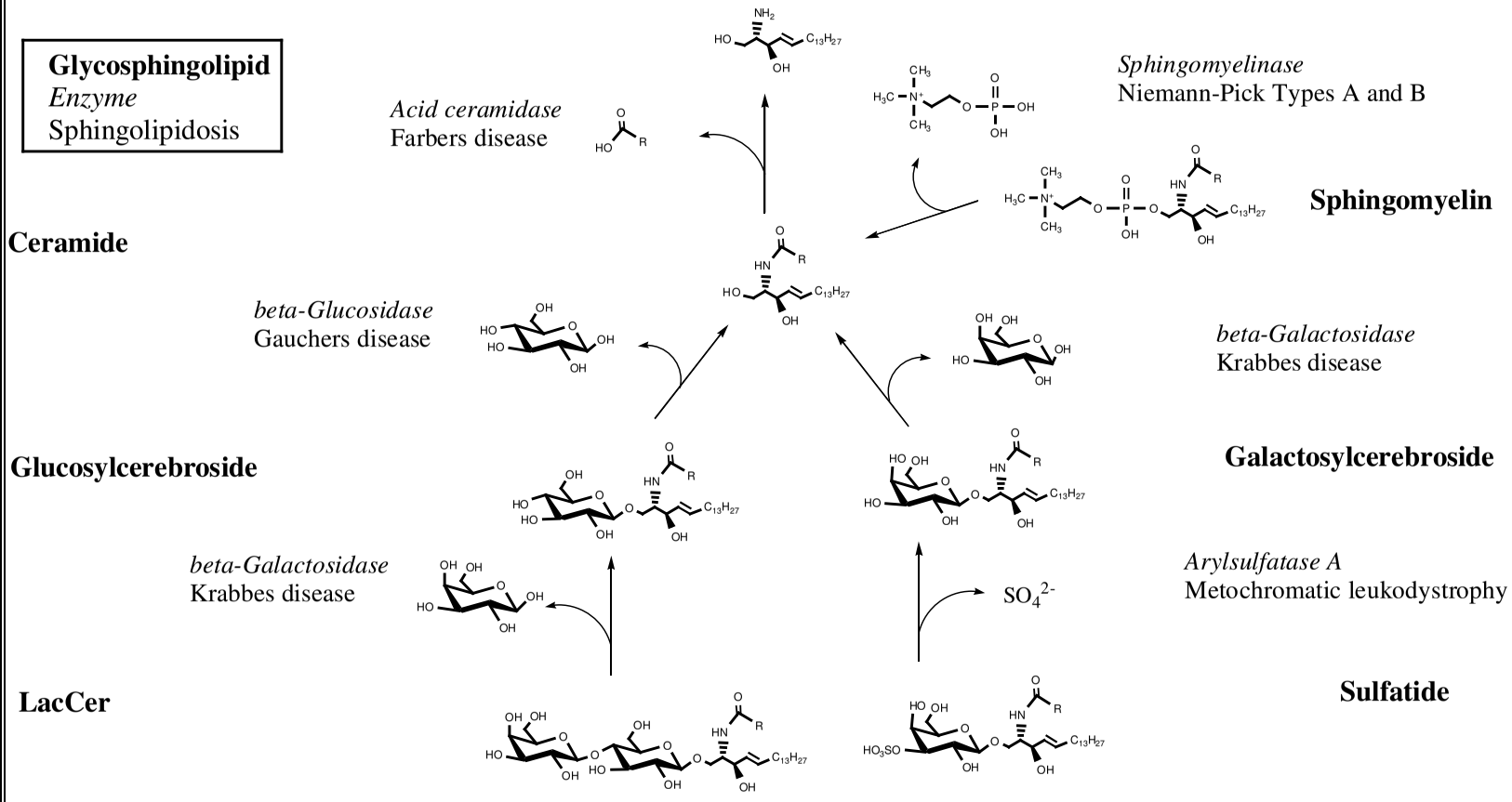
Package Weight

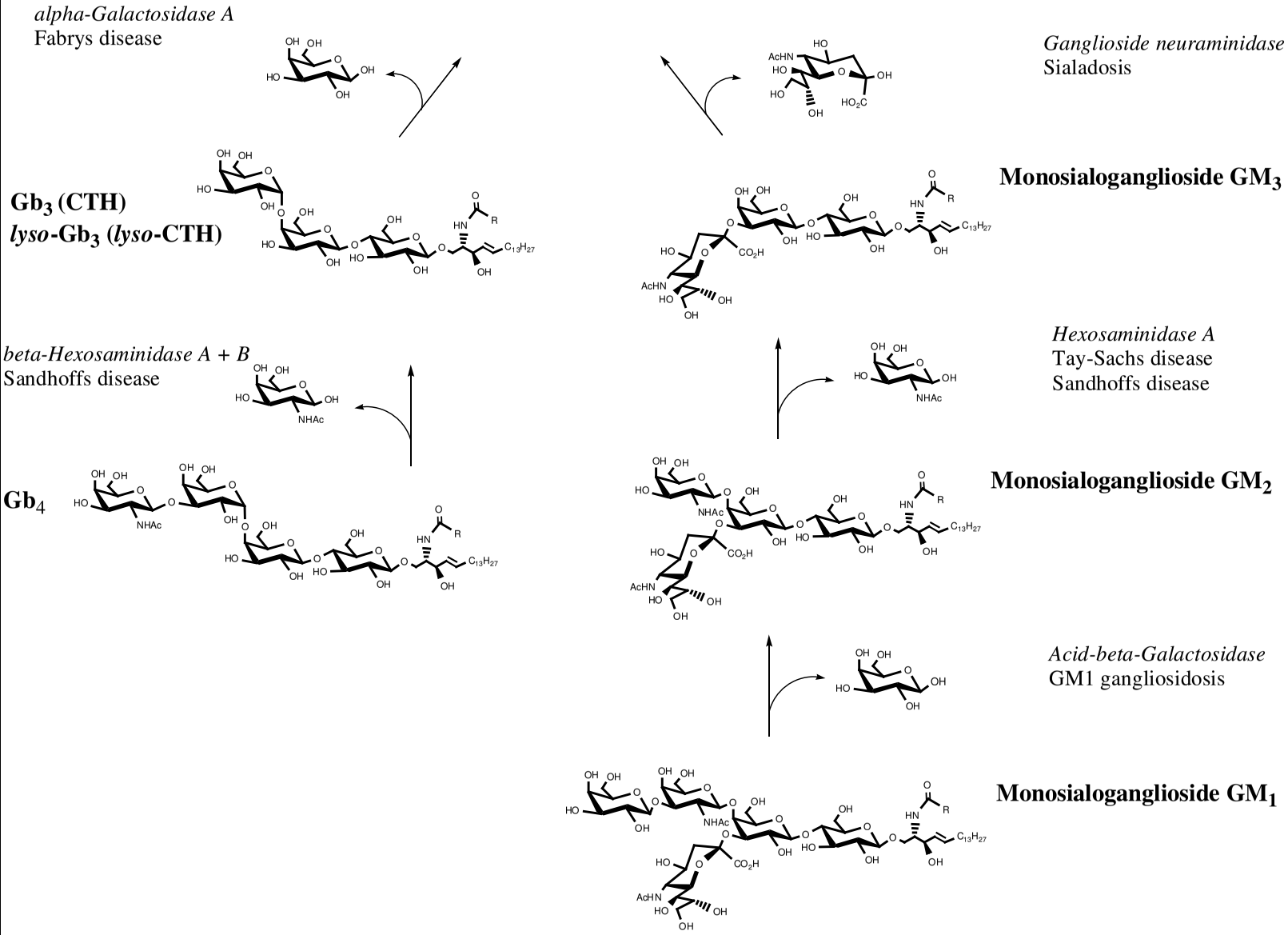
Unless otherwise specified, the package will contain at least the indicated amount and usually slightly more. The user is cautioned to always measure the required amount from the container.

Matreya's Mission

Matreya is committed to manufacturing high purity lipids to be used as research standards in the biotechnology and pharmaceutical areas. These lipids will be offered world-wide at a fair market price, and at a profit sufficient to assure company growth, for the benefit of its customers, employees, share holders, and community. Matreya will also be committed to fast delivery, excellent technical backup, new product development, safety, and environmentally friendly.

Lysosomal Storage Disorders Pathways Chart




alpha-Galactosidase A
Fabrys disease
Ganglioside neuraminidase
Sialadosis
Gb3 (CTH)
lyso-Gb3 (lyso-CTH)
Monosialoganglioside GM3
beta-Hexosaminidase A + B
Sandhoffs disease
Hexosaminidase A
Tay-Sachs disease
Sandhoffs disease
Gb4
Monosialoganglioside GM2
Acid-beta-Galactosidase
GM1 gangliosidosis
Monosialoganglioside GM1

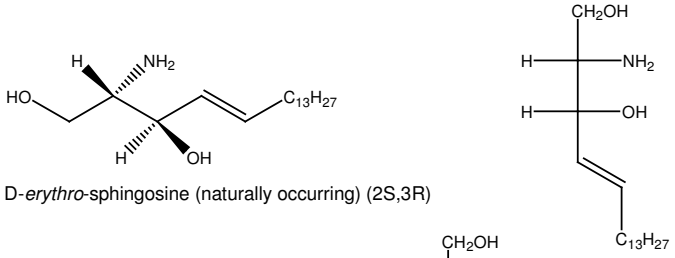
Sphingoid Bases, Sphingolipids and Glycosphingolipids

Sphingoid bases such as sphingosine are the characteristic structural unit of the sphingolipids. The bases are long chain aliphatic amines, containing two or three hydroxyl groups, and typically a *trans*-double bond at C4. In animal tissues, the most abundant base is sphingosine with a C18 aliphatic chain containing a double bond in position 4. The saturated analogue is dihydrosphingosine or sphinganine. In plants, the common long chain base is the 4 hydroxy saturated base phytosphingosine.

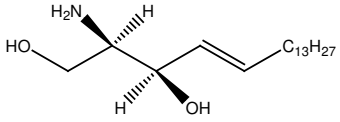
Sphingolipids are widely distributed in animal tissues, particularly cell membranes. Sphingoid bases linked to fatty acids via an amide bond at C2 are ceramides and are present in trace amounts in most tissues. Glycosphingolipids (ceramides having various mono- and oligosaccharides on the OH group at C1) are neutral glycosphingolipids (i.e., cerebrosides and globosides). Those with sialic acid derivatized sugars are acidic glycolipids (i.e., gangliosides). They are amphiphilic and can be solubilized in buffers via sonication and micelle formation.

Gangliosides are present in substantial amounts in nerve cell membranes, and together with globosides are found in the membranes of white and red blood cells. These, plus the glycosphingolipids of the lacto- and neolacto-series are involved in cell recognition (e.g. blood group determinants). Glycolipid expression on the surface of cells determines their antigenicity as well as their status, i.e. differentiated vs. undifferentiated (embryonic), normal vs. malignant, etc. (1). The ganglioside GM_1 stimulates nerve growth (2,3) and has been reported to have a curative effect on experimental Parkinsonism (4). For an overview, see (5). Gangliosides are also being investigated as potential anti-tumor vaccines (6). Glycosphingolipids are also essential for the correct functioning of cell surface receptors (7). Matreya is your best source for many sphingolipids. Most of Matreya's sphingosines and ceramides are fully synthetic and, as such, 98%+ pure. Others, particularly the glycosphingolipids, are highly purified natural products (98%+) and can be used either as standards or biochemical reagents without further purification.

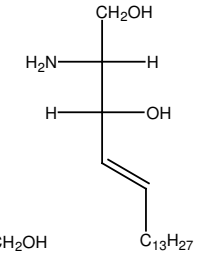
Through total synthesis, a number of sphingosines and ceramides are available (for details in using ceramides in cell culture see Hauser et al. [9]). Fluorescent labeled ceramides, glycosphingolipids and sphingomyelins are also available for study. D. N. Brindley and his group have been exploring the interaction of ceramides, sphingosine and sphingosine 1-phosphate in regulating DNA synthesis and phospholipase D activity. **See Literature References on page 109.**

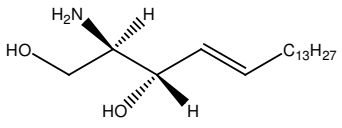


D-*erythro*-sphingosine (naturally occurring) (2S,3R)

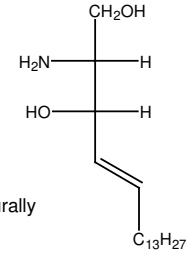


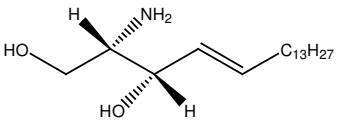
D-*threo*-sphingosine (2R,3R)



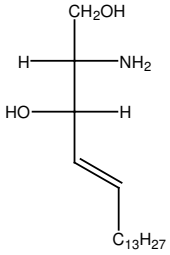


L-*erythro*-sphingosine (enantiomer of naturally occurring sphingosine) (2R,3S)



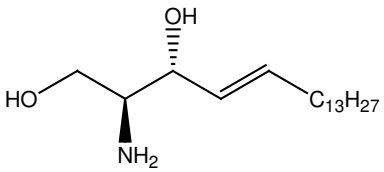


L-*threo*-sphingosine (2S,3S)



Sphingosines

Synthetic Sphingosines with C18 Sphingoid Base



1802 **D-*erythro*-Sphingosine** **25 mg**
Sphingosine with C18 chain

$C_{18}H_{37}NO_2$ **Mol. Wt.:** 299 **CAS#:** 123-78-4
Source: synthetic **Purity:** 98+% by TLC, GC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, ethanol, methanol, DMSO
Storage: –20°C
Activity: Selective inhibitor of phosphokinase C

2079 **D-*erythro*-Sphingosine, D9** **1 mg**
15,15,16,16,17,17,18,18,18-D9-2-Amino-octadec-4-ene-1,3-diol

$C_{18}H_{28}D_9NO_2$ **Mol. Wt.:** 309
Source: synthetic **Purity:** 98+% by TLC, GC, HPLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, ethanol, methanol, DMSO
Storage: –20°C

1806 **L-*threo*-Sphingosine** **10 mg**
L-*threo*-Sphingosine, C18 chain

$C_{18}H_{37}NO_2$ **Mol. Wt.:** 299 **CAS#:** 25695-95-8
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: solid **Solubility:** chloroform, ethanol, methanol, DMSO
Storage: –20°C

1826 **L-*erythro*-Sphingosine** **5 mg**
L-*erythro*-Sphingosine, C18 chain

$C_{18}H_{37}NO_2$ **Mol. Wt.:** 299 **CAS#:** 6036-75-5
Source: synthetic **Purity:** 98+% by TLC, GC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, ethanol, methanol, DMSO
Storage: –20°C

Synthetic Sphingosines with Sphingoid Bases other than C18

Varying chain lengths allows the study of translocation effects of sphingosines and ceramides into cells.

1838 **D-*erythro*-C12-Sphingosine** **5 mg**
Sphingosine with C12 chain

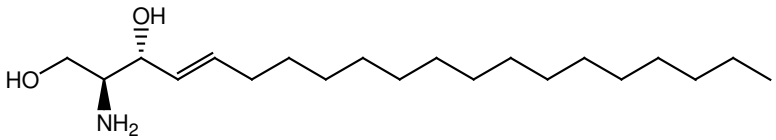
$C_{12}H_{25}NO_2$ **Mol. Wt.:** 215 **CAS#:** 128427-86-1
Source: synthetic **Purity:** 98+% by TLC, GC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, ethanol, methanol, DMSO
Storage: –20°C

1833 **D-*erythro*-C14-Sphingosine** **5 mg**
Sphingosine with C14 chain

$C_{14}H_{29}NO_2$ **Mol. Wt.:** 243 **CAS#:** 24558-60-9
Source: synthetic **Purity:** 98+% by TLC, GC, HPLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, ethanol, methanol, DMSO
Storage: –20°C

2082 **D-*erythro*-C17-Sphingosine** **5 mg**
Sphingosine with C17 chain

$C_{17}H_{35}NO_2$ **Mol. Wt.:** 286 **CAS#:** 6918-48-5
Source: synthetic **Purity:** 98+% by TLC, GC, HPLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, ethanol, methanol
Storage: –20°C

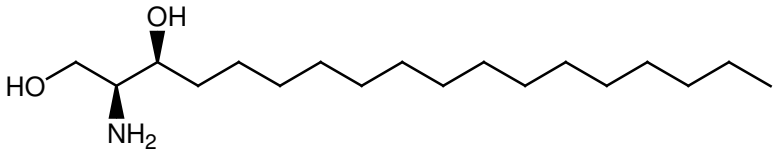


1840 **D-*erythro*-C20-Sphingosine** **5 mg**
Sphingosine with C20 chain

$C_{20}H_{41}NO_2$ **Mol. Wt.:** 328 **CAS#:** 6918-49-6
Source: synthetic **Purity:** 98+% by TLC, GC, HPLC
Appearance: solid **Solubility:** chloroform, ethanol, methanol, DMSO
Storage: –20°C

Synthetic Dihydrosphingosines

D,L-*threo*-Dihydrosphingosine has also been found to be a significant inhibitor of sphingosine kinase (8). The D,L-*erythro*-isomer has been used as an inactive control. We offer all four isomers in pure form making detailed studies possible. Safingol, the L-*threo*-isomer is a potent inhibitor of PKC and, as such, is capable of reversing multi-drug resistance in cancer cells (9). **See Literature References on page 109.**



1807 **L-*threo*-Dihydrosphingosine (Safingol)** **5 mg**
1807-025 L-*threo*-Sphinganine, C18 chain **25 mg**

$C_{18}H_{39}NO_2$ **Mol. Wt.:** 301 **CAS#:** 15639-50-6
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: solid **Solubility:** chloroform, ethanol, methanol, DMSO
Storage: –20°C
Activity: Inhibitor of Protein Kinase C (PKC) and Sphingosine Kinase

1831 **D-*erythro*-Dihydrosphingosine** **25 mg**
D-*erythro*-Sphinganine, C18 chain

$C_{18}H_{39}NO_2$ **Mol. Wt.:** 301 **CAS#:** 764-22-7
Source: synthetic **Purity:** 98+% by TLC, GC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, ethanol, methanol, DMSO
Storage: –20°C
Activity: Inhibitor of PLA_2 and PLD

1846 **L-*erythro*-Dihydrosphingosine** **1 mg**
L-*erythro*-Sphinganine, C18 chain

$C_{18}H_{39}NO_2$ **Mol. Wt.:** 301 **CAS#:** 6036-76-6
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: solid **Solubility:** chloroform, ethanol, methanol, DMSO
Storage: –20°C

1851 **D-*threo*-Dihydrosphingosine** **1 mg**
D-*threo*-Sphinganine, C18 chain

$C_{18}H_{39}NO_2$ **Mol. Wt.:** 301 **CAS#:** 6036-86-8
Source: synthetic **Purity:** 98+% by TLC, GC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, ethanol, methanol, DMSO
Storage: –20°C

1324 **D,L-*erythro*-Dihydrosphingosine** **25 mg**
D,L-*erythro*-Sphinganine, C18 chain

$C_{18}H_{39}NO_2$ **Mol. Wt.:** 301 **CAS#:** 3102-56-5
Source: synthetic **Purity:** *erythro* 77%; *threo* 23% by TLC, GC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, ethanol, methanol, DMSO
Storage: –20°C
Activity: Inhibitor of sphingosine kinase

1326 **D,L-C16-Dihydrosphingosine (mixed isomers)** **10 mg**
D,L-Sphinganine with C16 chain

$C_{16}H_{35}NO_2$ **Mol. Wt.:** 273
Source: synthetic **Purity:** *erythro* 90%, *threo* 10% by TLC, GC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, ethanol, methanol, DMSO
Storage: –20°C

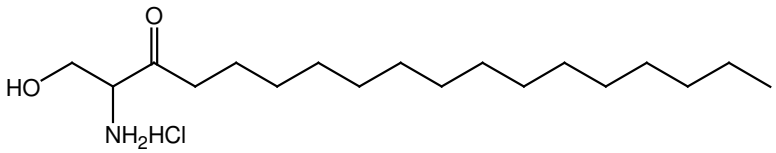
1845 **D-*erythro*-C20-Dihydrosphingosine** **5 mg**
D-*erythro*-Sphinganine, C20 chain

$C_{20}H_{43}NO_2$ **Mol. Wt.:** 330 **CAS#:** 24006-62-0
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: solid **Solubility:** warm ethanol, chloroform/methanol, 5:1
Storage: –20°C

1839 **D,L-*erythro*-C20-Dihydrosphingosine** **10 mg**
D,L-*erythro*-Sphinganine, C20 chain

$C_{20}H_{43}NO_2$ **Mol. Wt.:** 330
Source: synthetic **Purity:** 98+% by TLC, GC **Identity:** confirmed by MS
Appearance: solid **Solubility:** warm ethanol, chloroform/methanol, 5:1
Storage: –20°C

3-Keto-Dihydrosphingosines



1876 **3-keto-Dihydrosphingosine•HCl** **10 mg**
3-keto-Sphinganine hydrochloride

$C_{18}H_{37}NO_2$•HCl **Mol. Wt.:** 299 + HCl **CAS#:** 18944-28-0
Source: synthetic **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, ethanol, methanol
Storage: –20°C

1891 **3-keto-C6-Dihydrosphingosine•HCl** **10 mg**
1-Hydroxy-2-amino-3-keto-hexane • HCl

$C_6H_{13}NO_2$ •HCl **Mol. Wt.:** 168 **CAS#:** 1314999-30-8
Source: synthetic **Purity:** 98+% by TLC
Appearance: solid **Solubility:** ethanol, methanol, DI water
Storage: –20°C

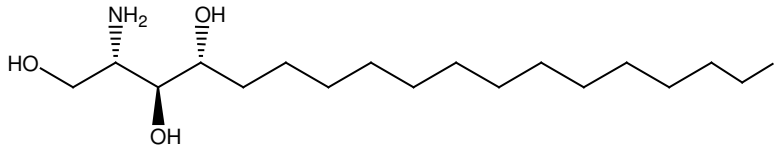
1892 **3-keto-C8-Dihydrosphingosine•HCl** **10 mg**
1-Hydroxy-2-amino-3-keto-octane • HCl

$C_8H_{17}NO_2$ •HCl **Mol. Wt.:** 196 **CAS#:** 1824382-78-6
Source: synthetic **Purity:** 98+% by TLC
Appearance: solid **Solubility:** chloroform, ethanol, methanol, DI water
Storage: –20°C

1893 **3-keto-C12-Dihydrosphingosine•HCl** **10 mg**
1-Hydroxy-2-amino-3-keto-dodecane • HCl

$C_{12}H_{25}NO_2$ •HCl **Mol. Wt.:** 252 **CAS#:** 1823032-02-5
Source: synthetic **Purity:** 98+% by TLC
Appearance: solid **Solubility:** chloroform, ethanol, methanol
Storage: –20°C

Phytosphingosines



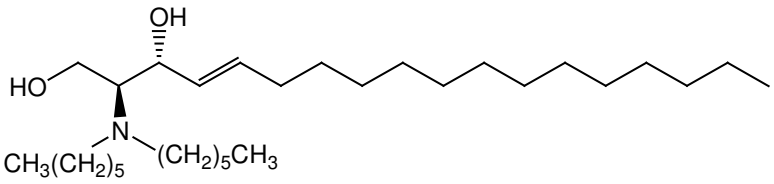
1330 **Phytosphingosine** **50 mg**
4-Hydroxysphinganine

$C_{18}H_{39}NO_3$ **Mol. Wt.:** 318 **CAS#:** 554-62-1
Source: natural, yeast (*Pichia ciferri*) **Purity:** 98+% by TLC, GC **Identity:** confirmed by MS
Appearance: solid **Solubility:** ethanol, methanol, chloroform/methanol, 2:1 (warm)
Storage: –20°C

Other Sphingosine Derivatives and Precursors

1320 **N,N-Dimethyl-D-*erythro*-sphingosine** **5 mg/ml, 1 ml**

$C_{20}H_{41}NO_2$ **Mol. Wt.:** 328 **CAS#:** 119567-63-4
Source: synthetic **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: liquid **Solubility:** chloroform, ethanol, isopropanol, methanol
Storage: –20°C **Solvent:** isopropanol
Activity: Inhibitor of phosphokinase C



1896 **N,N-Dihexyl-D-*erythro*-sphingosine** **5 mg/ml, 1 ml**
Sphingosine with tertiary amine group

$C_{30}H_{61}NO_2$ **Mol. Wt.:** 468
Source: synthetic **Purity:** 95% by TLC
Appearance: liquid **Solubility:** chloroform, ethanol, methanol
Storage: –20°C **Solvent:** ethanol

Ceramides

Ceramide is a fatty acid amide of sphingosine. It may be formed by dehydrogenation of dihydroceramide; by hydrolysis of sphingomyelin or glycosphingolipids; or by acylation of free sphingosine. Ceramide functions as a precursor in the synthesis of sphingomyelin (by an exchange reaction with phosphatidylcholine and phosphatidylethanolamine); of glycosphingolipids (by glycosylation with UDP-hexose); and of free sphingosine and fatty acid by hydrolysis. The sphingosine can be phosphorylated by a kinase to form sphingosine-1-phosphate, which may undergo further hydrolysis or cleavage.

Control of sphingolipid metabolism maintains vital balance points in cell physiology. Two of ceramide's metabolites, sphingosine-1-phosphate and glucosylceramide, produce cell proliferation. Sphingosine-1-phosphate is also a highly active regulator of angiogenesis, vascular maturation, cardiac development, immunity, and directed cell movement. Sphingosine, the free base, is a potent inhibitor of protein kinase C and is involved in intracellaular calcium regulation.

Sphingolipid enzymes seem to be particularly active in cancers, so modifying their activities by exogenous action may provide alternatives to chemical therapies. These enzymes are controlled by many known agents, such as 1,25-dihdroxy-vitamin D_3, tumor necrosis factor-α, nerve growth factor, interleukin 1, endothelial growth factor, glutathione, arachidonic acid, dexamethasone, many anticancer drugs, therapeutic radiation, and activators of the FAS receptor.

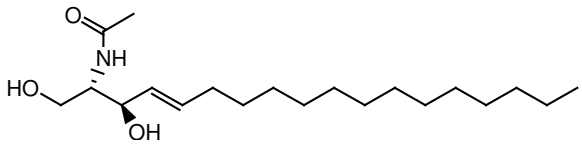
Ceramide exerts numerous biological effects, including induction of cell maturation, cell cycle arrest, terminal cell differentiation, cell senescence, and cell death. Other effects include producing reactive oxygen in mitochondria (followed by apoptosis) and stimulating phosphorylation of certain proteins (especially mitogen activated protein). It also stimulates some protein phosphatases (especially protein phosphatase 2A). Thus, ceramide is an important controller of protein activity.

It is apparent from these relationships that ceramide exists at the crux of several enzyme reaction cycles and that experiments involving sphingolipid function call for control of all of the cycles and their branch-off points. Matreya is the major supplier of these lipids, which can be used as standards for analysis of tissues (a much needed part of modern research) and identification of major sphingolipids.

Ceramides with short side chains have been shown to enter easily into cells where they are biologically active. Ceramides with longer side chains, however, also enter cells if dissolved in dodecane-isopropanol first. Fluorescent labeled ceramides and sphingomyelin made from fluorescent labeled acids instead of plain fatty acids are also available for the study of the localization and metabolism of sphingolipids in the cell.

In three major reviews, Radin (10-12) has discussed the biochemistry and chemistry of ceramides and outlined many potential approaches to cancer therapy using ceramides and related compounds as generators of apoptosis.
See Literature References on page 109.

Synthetic Ceramides Derived from C18-Sphingosine



1901 **N-Acetyl-D-*erythro*-sphingosine** **10 mg**
N-C2:0-D-*erythro*-Ceramide

$C_{20}H_{39}NO_3$ **Mol. Wt.:** 342 **CAS#:** 3102-57-6
Source: synthetic **Purity:** 98+% by TLC, GC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, ethanol, methanol, DMSO (up to 5 mg/ml)
Storage: –20°C

1829 **N-Acetyl-L-*threo*-sphingosine** **1 mg**
N-C2:0-L-*threo*-Ceramide

$C_{20}H_{39}NO_3$ **Mol. Wt.:** 342
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: solid **Solubility:** chloroform, ethanol, methanol, DMSO, DMF (up to 5 mg/ml)
Storage: –20°C

1847 **N-Acetyl-L-*erythro*-sphingosine** **1 mg**
N-C2:0-L-*erythro*-Ceramide

$C_{20}H_{39}NO_3$ **Mol. Wt.:** 342
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: solid **Solubility:** chloroform, ethanol, methanol, DMSO, DMF (up to 5 mg/ml)
Storage: –20°C

1900 **N-Hexanoyl-D-*erythro*-sphingosine** **10 mg**
N-C6:0-D-*erythro*-Ceramide

$C_{24}H_{47}NO_3$ **Mol. Wt.:** 398 **CAS#:** 124753-97-5
Source: synthetic **Purity:** 98+% by TLC, GC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, ethanol, DMSO (up to 5 mg/ml)
Storage: –20°C

1828 **N-Hexanoyl-L-*threo*-sphingosine** **1 mg**
N-C6:0-L-*threo*-Ceramide

$C_{24}H_{47}NO_3$ **Mol. Wt.:** 398
Source: synthetic **Purity:** 98+% by TLC, GC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, ethanol, DMSO, DMF (up to 5mg/ml)
Storage: –20°C

1848 **N-Hexanoyl-L-*erythro*-sphingosine** **1 mg**
N-C6:0-L-*erythro*-Ceramide

$C_{24}H_{47}NO_3$ **Mol. Wt.:** 398
Source: synthetic **Purity:** 98+% by TLC, GC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, ethanol, DMSO, DMF (up to 5mg/ml)
Storage: –20°C

1809 **N-Hexanoyl-D-*threo*-sphingosine** **1 mg**
N-C6:0-D-*threo*-Ceramide

$C_{24}H_{47}NO_3$ **Mol. Wt.:** 398
Source: synthetic **Purity:** 98+% by TLC, GC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, methanol, DMSO (up to 5 mg/ml)
Storage: –20°C

1903 **N-Octanoyl-D-*erythro*-sphingosine** **10 mg**
N-C8:0-D-*erythro*-Ceramide

$C_{26}H_{51}NO_3$ **Mol. Wt.:** 426 **CAS#:** 74713-59-0
Source: synthetic **Purity:** 98+% by TLC, GC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, ethanol, methanol, DMSO (up to 5 mg/ml)
Storage: –20°C

1830 **N-Octanoyl-L-*threo*-sphingosine** **1 mg**
N-C8:0-L-*threo*-Ceramide

$C_{26}H_{51}NO_3$ **Mol. Wt.:** 426
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: solid **Solubility:** chloroform, ethanol, DMSO, DMF (up to 5 mg/ml)
Storage: –20°C

1810 **N-Octanoyl-D-*threo*-sphingosine** **1 mg**
N-C8:0-D-*threo*-Ceramide

$C_{26}H_{51}NO_3$ **Mol. Wt.:** 426
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: solid **Solubility:** chloroform, ethanol, DMSO, DMF (up to 5 mg/ml)
Storage: –20°C

1333 **N-Decanoyl-D-*erythro*-sphingosine** **10 mg**
N-C10:0-D-*erythro*-Ceramide

$C_{28}H_{55}NO_3$ **Mol. Wt.:** 454 **CAS#:** 111122-57-7
Source: synthetic **Purity:** 98+% by TLC, GC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, ethanol, methanol, DMSO (up to 5mg/ml)
Storage: –20°C

1936 **N-Dodecanoyl-D-*erythro*-sphingosine** **10 mg**
N-C12:0-D-*erythro*-Ceramide

$C_{30}H_{59}NO_3$ **Mol. Wt.:** 482 **CAS#:** 74713-60-3
Source: synthetic **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, ethanol, DMSO, DMF
Storage: –20°C

2037 **N-Pentadecanoyl-D-*erythro*-sphingosine** **10 mg**
N-C15:0-D-*erythro*-Ceramide

$C_{33}H_{65}NO_3$ **Mol. Wt.:** 524
Source: synthetic **Purity:** 98+% by TLC, GC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, warm ethanol, warm methanol
Storage: –20°C

1915 **N-Hexadecanoyl-D-*erythro*-sphingosine** **10 mg**
N-C16:0-D-*erythro*-Ceramide; N-Palmitoyl-D-*erythro*-sphingosine

$C_{34}H_{67}NO_3$ **Mol. Wt.:** 538 **CAS#:** 24696-26-2
Source: synthetic **Purity:** 98+% by TLC, GC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, warm ethanol, warm methanol
Storage: –20°C

2038 **N-Heptadecanoyl-D-*erythro*-sphingosine** **10 mg**
N-C17:0-D-*erythro*-Ceramide

$C_{35}H_{69}NO_3$ **Mol. Wt.:** 552 **CAS#:** 67492-16-4
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: solid **Solubility:** chloroform, warm ethanol, warm methanol
Storage: –20°C

1832 **N-Octadecanoyl-D-*erythro*-sphingosine** **10 mg**
N-C18:0-D-*erythro*-Ceramide; N-Stearoyl-D-*erythro*-sphingosine

$C_{36}H_{71}NO_3$ **Mol. Wt.:** 566 **CAS#:** 2304-81-6
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: solid **Solubility:** chloroform, hot ethanol, chloroform/methanol, 2:1 (up to 5mg/ml)
Storage: –20°C

2201 **N-*omega*-CD_3-Octadecanoyl-D-*erythro*-sphingosine** **1 mg**
N-C18:0-CD_3-D-*erythro*-Ceramide; N-Stearoyl-CD_3-D-*erythro*-sphingosine

$C_{36}H_{68}NO_3D_3$ **Mol. Wt.:** 569
Source: synthetic **Purity:** 98+% by TLC, GC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, hot ethanol, DMF
Storage: –20°C

1939 **N-Octadecenoyl-(*cis*-9)-D-*erythro*-sphingosine** **5 mg**
1939-25 N-C18:1-D-*erythro*-Ceramide; N-Oleoyl-D-*erythro*-sphingosine **25 mg**

$C_{36}H_{69}NO_3$ **Mol. Wt.:** 564 **CAS#:** 5966-28-9
Source: synthetic **Purity:** 98+% by TLC, GC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, hot ethanol, DMF
Storage: –20°C

1843 **N-Octadecanoyl-L-*threo*-sphingosine** **1 mg**
N-C18:0-L-*threo*-Ceramide; N-Stearoyl-L-*threo*-sphingosine

$C_{36}H_{71}NO_3$ **Mol. Wt.:** 566
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: solid **Solubility:** chloroform, ethanol, DMSO, DMF (up to 5mg/ml)
Storage: –20°C

1850 **N-Octadecanoyl-L-*erythro*-sphingosine** **1 mg**
N-C18:0-L-*erythro*-Ceramide; N-Stearoyl-L-*erythro*-sphingosine

$C_{36}H_{71}NO_3$ **Mol. Wt.:** 566
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: solid **Solubility:** chloroform, ethanol, DMSO, DMF (up to 5mg/ml)
Storage: –20°C

1855 **N-Octadecanoyl-D-*threo*-sphingosine** **1 mg**
N-C18:0-D-*threo*-Ceramide; N-Stearoyl-D-*threo*-sphingosine

$C_{36}H_{71}NO_3$ **Mol. Wt.:** 566 **CAS#:** 2304-81-6
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: solid **Solubility:** chloroform, ethanol, DMSO, DMF (up to 5mg/ml)
Storage: –20°C

2039 **N-Nonadecanoyl-D-*erythro*-sphingosine** **10 mg**
N-C19:0-D-*erythro*-Ceramide

$C_{37}H_{73}NO_3$ **Mol. Wt.:** 580
Source: synthetic **Purity:** 98+% by TLC, GC, HPLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, warm ethanol, warm methanol
Storage: –20°C

1916 **N-Tetracosanoyl-D-*erythro*-sphingosine** **5 mg**
N-C24:0-D-*erythro*-Ceramide; N-Lignoceroyl-D-*erythro*-sphingosine

$C_{42}H_{83}NO_3$ **Mol. Wt.:** 650 **CAS#:** 34435-05-7
Source: synthetic **Purity:** 98+% by TLC, GC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform
Storage: –20°C

1930 **N-Tetracosenoyl-(*cis*-15)-D-*erythro*-sphingosine** **5 mg**
N-*cis*-15-C24:1-D-*erythro*-Ceramide; N-Nervonoyl-D-*erythro*-sphingosine

$C_{42}H_{81}NO_3$ **Mol. Wt.:** 648 **CAS#:** 54164-50-0
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: solid **Solubility:** chloroform, ethanol, DMSO, warm methanol
Storage: –20°C

2049 **N-Triacontanoyl-D-*erythro*-sphingosine** **1 mg**
N-C30:0-D-*erythro*-Ceramide

$C_{48}H_{95}NO_3$ **Mol. Wt.:** 734 **CAS#:** 871540-97-5
Source: synthetic **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol 2:1, chloroform, ethanol
Storage: –20°C

2080 **N-*omega*-Hydroxytriacontanoyl-D-*erythro*-sphingosine** **5 mg**
N-*omega*-Hydroxy-C30:0-D-*erythro*-ceramide

$C_{48}H_{95}NO_4$ **Mol. Wt.:** 750
Source: synthetic **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol 2:1, DMF, hot ethanol
Storage: –20°C

2084 **N-(30-Linoleoyloxy-triacontanoyl)-sphingosine** **1 mg**
Ceramide EOS; EOS Ceramide 1

$C_{66}H_{125}NO_5$ **Mol. Wt.:** 1013
Source: synthetic **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, methanol, DMF
Storage: –20°C

2135 **N-(30-Linoleoyloxy-triacontanoyl)-phytosphingosine** **1 mg**
NEW Ceramide EOP; EOP Ceramide 9

$C_{66}H_{127}NO_6$ **Mol. Wt.:** 1031
Source: semisynthetic, yeast (*Pichia ciferri*) **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** warm chloroform/methanol, 4:1
Storage: –20°C

2208 **N-(32-Linoleoyloxy-dotriacontanoyl)-sphingosine-D9** **1 mg**
NEW EOS Ceramide, deuterated; O-acylceramide, deuterated

$C_{68}H_{120}D_9NO_5$ **Mol. Wt.:** 1050
Source: synthetic **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, methanol, DMF
Storage: –20°C

2048 **N-Dotriacontanoyl-D-*erythro*-sphingosine** **5 mg**
N-C32:0-D-*erythro*-Ceramide

$C_{50}H_{99}NO_3$ **Mol. Wt.:** 762 **CAS#:** 34227-73-1
Source: synthetic **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol 2:1, hot methanol, hot ethanol, hot DMSO
Storage: –20°C

2081 **N-Hexanoyl-biotin-D-*erythro*-sphingosine** **5 mg**
N-C6:0-biotin-D-*erythro*-Ceramide

$C_{34}H_{62}N_4O_5S$ **Mol. Wt.:** 639
Source: synthetic **Purity:** 98+% by TLC, HPLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol 2:1, DMF
Storage: –20°C

2-Hydroxy Ceramides

2044 **N-(R,S)-*alpha*-Hydroxyoctadecanoyl-D-*erythro*-sphingosine** **5 mg**
N-(R,S)-*alpha*-Hydroxy-C18:0-D-*erythro*-ceramide;
N-(R,S)-*alpha*-Hydroxystearoyl-D-*erythro*-sphingosine

$C_{36}H_{71}NO_4$ **Mol. Wt.:** 582
Source: synthetic **Purity:** 98+% by TLC, GC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol/DI water, 2:1:0.5
Storage: –20°C

2096 **N-(R)-*alpha*-Hydroxytetracosanoyl-D-*erythro*-sphingosine** **1 mg**
NEW N-(R)-*alpha*-Hydroxy-C24:0-ceramide; N-(R)-Cerebronoyl-ceramide

$C_{42}H_{83}NO_4$ **Mol. Wt.:** 666
Source: synthetic **Purity:** 98+% by TLC, HPLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol 4:1, warm ethanol
Storage: –20°C

2097 **N-(S)-*alpha*-Hydroxytetracosanoyl-D-*erythro*-sphingosine** **1 mg**
NEW N-(S)-*alpha*-Hydroxy-C24:0-ceramide; N-(S)-Cerebronoyl-ceramide

$C_{42}H_{83}NO_4$ **Mol. Wt.:** 666
Source: synthetic **Purity:** 98+% by TLC, HPLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol 4:1, warm ethanol
Storage: –20°C

2098 **N-(R)-*alpha*-Hydroxytetracosanoyl-D-*erythro*-dihydrosphingosine** **1 mg**
NEW N-(R)-*alpha*-Hydroxy-C24:0-sphinganine; N-(R)-Cerebronoyl-dihydroceramide

$C_{42}H_{85}NO_4$ **Mol. Wt.:** 668
Source: synthetic **Purity:** 98+% by TLC, HPLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol 2:1
Storage: –20°C

2099 **N-(S)-*alpha*-Hydroxytetracosanoyl-D-*erythro*-dihydrosphingosine** **1 mg**
NEW N-(S)-*alpha*-Hydroxy-C24:0-sphinganine; N-(S)-Cerebronoyl-dihydroceramide

$C_{42}H_{85}NO_4$ **Mol. Wt.:** 668
Source: synthetic **Purity:** 98+% by TLC, HPLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol 2:1
Storage: –20°C

Ceramide Made from Sphingosines with Sphingoid Bases Other Than C18

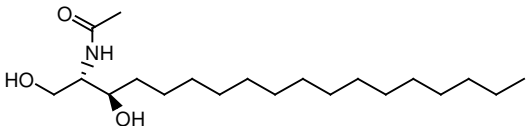
1842 **N-Acetyl-D-*erythro*-sphingosine (C14 sphingolipid base)** **5 mg**
N-C2:0 Ceramide of D-*erythro*-C14-sphingosine

$C_{16}H_{31}NO_3$ **Mol. Wt.:** 285
Source: synthetic **Purity:** 98+% by TLC, GC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, ethanol, DMSO, DMF (up to 5 mg/ml)
Storage: –20°C

2077 **N-Hexadecanoyl-D-*erythro*-sphingosine (C16 sphingolipid base)** **1 mg**
N-Palmitoyl-D-*erythro*-C16-sphingosine;
N-C16:0 Ceramide of D-*erythro*-C16-sphingosine

$C_{32}H_{63}NO_3$ **Mol. Wt.:** 510
Source: synthetic **Purity:** 98+% by TLC, HPLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, warm ethanol, warm methanol
Storage: –20°C

Dihydroceramides



1834 **N-Acetyl-D-*erythro*-dihydrosphingosine** **5 mg**
N-C2:0-D-*erythro*-Dihydroceramide; N-Acetyl-D-*erythro*-sphinganine

$C_{20}H_{41}NO_3$ **Mol. Wt.:** 344 **CAS#:** 13031-64-6
Source: synthetic **Purity:** 98+% by TLC, GC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, ethanol, methanol
Storage: –20°C

1910 **N-Hexanoyl-D-*erythro*-dihydrosphingosine** **5 mg**
N-C6:0-D-*erythro*-Dihydroceramide; N-Hexanoyl-D-*erythro*-sphinganine

$C_{24}H_{49}NO_3$ **Mol. Wt.:** 400 **CAS#:** 171039-13-7
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: solid **Solubility:** chloroform, ethanol, methanol, DMSO
Storage: –20°C

1854 **N-Octanoyl-D-*erythro*-dihydrosphingosine** **5 mg**
N-C8:0-D-*erythro*-Dihydroceramide; N-Octanoyl-D-*erythro*-sphinganine

$C_{26}H_{53}NO_3$ **Mol. Wt.:** 428
Source: synthetic **Purity:** 98+% by TLC, GC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, ethanol, DMSO
Storage: –20°C

2078 **N-Hexadecanoyl-D-*erythro*-dihydrosphingosine** **10 mg**
N-C16:0-D-*erythro*-Dihydroceramide; N-Hexadecanoyl-D-*erythro*-sphinganine

$C_{34}H_{69}NO_3$ **Mol. Wt.:** 540
Source: synthetic **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol 5:1, hot ethanol, DMSO
Storage: –20°C

2083 **N-Heptadecanoyl-D-*erythro*-dihydrosphingosine** **5 mg**
N-C17:0-D-*erythro*-Dihydroceramide; N-Heptadecanoyl-D-*erythro*-sphinganine

$C_{35}H_{71}NO_3$ **Mol. Wt.:** 554
Source: synthetic **Purity:** 98+% by TLC, GC, HPLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol 5:1, hot ethanol, DMSO
Storage: –20°C

2041 **N-Octadecanoyl-D-*erythro*-dihydrosphingosine** **10 mg**
N-C18:0-D-*erythro*-Dihydroceramide; N-Octadecanoyl-D-*erythro*-sphinganine;
N-Stearoyl-D-*erythro*-dihydrosphingosine

$C_{36}H_{73}NO_3$ **Mol. Wt.:** 568
Source: synthetic **Purity:** 98+% by TLC, HPLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** hot ethanol, DMSO, warm chloroform/methanol, 5:1
Storage: –20°C

2093 **N-Tetracosanoyl-D-*erythro*-dihydrosphingosine** **5 mg**
NEW N-C24:0-D-*erythro*-Dihydroceramide; N-Tetracosanoyl-D-*erythro*-sphinganine;
N-Lignoceryl-D-*erythro*-dihydrosphingosine

$C_{42}H_{85}NO_3$ **Mol. Wt.:** 652
Source: synthetic **Purity:** 98+% by TLC, HPLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol, 2:1
Storage: –20°C

2202 **N-*omega*-CD_3-Octadecanoyl-D-*erythro*-dihydrosphingosine** **1 mg**
N-C18:0-CD_3-D-*erythro*-Dihydroceramide; N-Stearoyl-CD_3-D-*erythro*-sphinganine

$C_{36}H_{70}D_3NO_3$ **Mol. Wt.:** 571
Source: synthetic **Purity:** 98% by TLC, GC, HPLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** hot ethanol, DMF, DMSO, chloroform/methanol, 2:1
Storage: –20°C

2212 **N-Hexanoyl-biotin-D-*erythro*-dihydrosphingosine** **5 mg**
NEW N-C6:0-Biotin-sphinganine; N-C6:0-Biotin-dihydroceramide

$C_{34}H_{64}N_4O_5S$ **Mol. Wt.:** 641
Source: synthetic **Purity:** 98+% by TLC, HPLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol, 2:1
Storage: –20°C

2-Hydroxy Dihydroceramides

2043 **N-(R,S)-*alpha*-Hydroxydodecanoyl-D-*erythro*-dihydrosphingosine** **5 mg**
N-(R,S)-*alpha*-Hydroxy-C12:0-D-*erythro*-dihydroceramide

$C_{30}H_{61}NO_4$ **Mol. Wt.:** 500
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: solid **Solubility:** chloroform/methanol/DI water, 2:1:0.5
Storage: –20°C

2047 **N-(R,S)-*alpha*-Hydroxyhexadecanoyl-D-*erythro*-dihydrosphingosine** **5 mg**
N-(R,S)-*alpha*-Hydroxy-C16:0-D-*erythro*-dihydroceramide;
N-(R,S)-*alpha*-Hydroxypalmitoyl-D-*erythro*-dihydrosphingosine

$C_{34}H_{69}NO_4$ **Mol. Wt.:** 556
Source: synthetic **Purity:** 98+% by TLC, GC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol/DI water, 2:1:0.5
Storage: –20°C

2045 **N-(R,S)-*alpha*-Hydroxyoctadecanoyl-D-*erythro*-dihydrosphingosine** **5 mg**
N-(R,S)-*alpha*-Hydroxy-C18:0-D-*erythro*-dihydroceramide;
N-(R,S)-*alpha*-Hydroxystearoyl-D-*erythro*-dihydrosphingosine

$C_{36}H_{73}NO_4$ **Mol. Wt.:** 584
Source: synthetic **Purity:** 98+% by TLC, GC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol/DI water, 2:1:0.5
Storage: –20°C

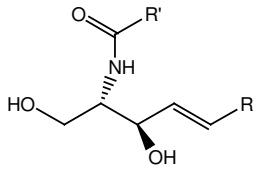
2098 **N-(R)-*alpha*-Hydroxytetracosanoyl-D-*erythro*-dihydrosphingosine** **1 mg**
NEW N-(R)-*alpha*-Hydroxy-C24:0-sphinganine; N-(R)-Cerebronoyl-dihydroceramide

$C_{42}H_{85}NO_4$ **Mol. Wt.:** 668
Source: synthetic **Purity:** 98+% by TLC, HPLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol 2:1
Storage: –20°C

2099 **N-(S)-*alpha*-Hydroxytetracosanoyl-D-*erythro*-dihydrosphingosine** **1 mg**
NEW N-(S)-*alpha*-Hydroxy-C24:0-sphinganine; N-(S)-Cerebronoyl-dihydroceramide

$C_{42}H_{85}NO_4$ **Mol. Wt.:** 668
Source: synthetic **Purity:** 98+% by TLC, HPLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol 2:1
Storage: –20°C

Ceramides From Natural Sources



General ceramide structure

1056 **Ceramides (mixture)** **25 mg**
Ceramides with hydroxy and non-hydroxy acyl groups

$C_{42}H_{83}NO_4$ **Mol. Wt.:** 666 (2-hydroxylignoceroyl) **CAS#:** 104404-17-13
Source: natural, bovine **Purity:** 98+% by TLC
Appearance: solid **Solubility:** chloroform/methanol, 2:1
Storage: –20°C
See Table III (pg. 104) for typical fatty acid content of products prepared from natural sources.

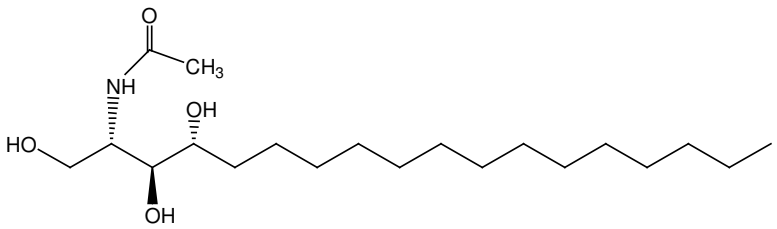
1322 **Ceramides (non-hydroxy)** **10 mg**
1322-05 Ceramides with mostly non-hydroxy acyl groups **50 mg**

$C_{36}H_{71}NO_3$ **Mol. Wt.:** 566 (stearoyl)
Source: natural, bovine **Purity:** 98+% by TLC
Appearance: solid **Solubility:** ethanol, chloroform/methanol, 2:1
Storage: –20°C
See Table III (pg. 106) for typical fatty acid content of products prepared from natural sources.

1323 **Ceramides (hydroxy)** **10 mg**
1323-05 Ceramides with mostly hydroxy acyl groups **50 mg**

$C_{36}H_{71}NO_4$ **Mol. Wt.:** 582 (2-hydroxystearoyl)
Source: natural, bovine **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** methanol, chloroform/methanol, 2:1
Storage: –20°C
See Table III (pg. 106) for typical fatty acid content of products prepared from natural sources.

Phytoceramides



1897 **N-Acetyl-phytosphingosine** **5 mg**
N-C2:0-Phytoceramide

$C_{20}H_{41}NO_4$ **Mol. Wt.:** 360 **CAS#:** 475995-69-8
Source: semisynthetic, yeast (*Pichia ciferri*) **Purity:** 98+% by TLC, HPLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** ethanol, methanol, warm DMSO, chloroform/methanol, 1:1 (warm)
Storage: –20°C

1895 **N-Hexanoyl-phytosphingosine** **5 mg**
N-C6:0-Phytoceramide

$C_{24}H_{49}NO_4$ **Mol. Wt.:** 416
Source: semisynthetic, yeast (*Pichia ciferri*) **Purity:** 98+% by TLC, HPLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** ethanol, methanol, chloroform/methanol,1:1 (warm)
Storage: –20°C

1894 **N-Octanoyl-phytosphingosine** **5 mg**
N-C8:0-Phytoceramide

$C_{26}H_{53}NO_4$ **Mol. Wt.:** 444 **CAS#:** 475995-74-5
Source: semisynthetic, yeast (*Pichia ciferri*) **Purity:** 98+% by TLC, HPLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** ethanol, methanol, chloroform/methanol,1:1 (warm)
Storage: –20°C

2035 **N-Hexadecanoyl-phytosphingosine** **5 mg**
N-C16:0-Phytoceramide; N-Palmitoyl-phytosphingosine

$C_{34}H_{69}NO_4$ **Mol. Wt.:** 556
Source: semisynthetic, yeast (*Pichia ciferri*) **Purity:** 98+% by TLC, HPLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol, 5:1
Storage: –20°C

2034 **N-Octadecanoyl-phytosphingosine** **5 mg**
N-C18:0-Phytoceramide; N-Stearoyl-phytosphingosine

$C_{36}H_{73}NO_4$ **Mol. Wt.:** 584 **CAS#:** 34354-88-6
Source: semisynthetic, yeast (*Pichia ciferri*) **Purity:** 98+% by TLC, HPLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol, 1:1 (warm)
Storage: –20°C

2135 **N-(30-Linoleoyloxy-triacontanoyl)-phytosphingosine** **5 mg**
NEW Ceramide EOP; EOP Ceramide 9

$C_{66}H_{127}NO_6$ **Mol. Wt.:** 1031
Source: semisynthetic, yeast (*Pichia ciferri*) **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol, 4:1
Storage: –20°C

2036 **N-Tetracosanoyl-phytosphingosine** **5 mg**
N-C24:0-Phytoceramide; N-Lignoceroyl-phytosphingosine

$C_{42}H_{85}NO_4$ **Mol. Wt.:** 668
Source: semisynthetic, yeast (*Pichia ciferri*) **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol, 5:1
Storage: –20°C

2094 **N-(R)-*alpha*-Hydroxytetracosanoyl-phytosphingosine** **1 mg**
NEW N-(R)-*alpha*-Hydroxy-C24:0-phytoceramide; N-(R)-Cerebronoyl-phytoceramide

$C_{42}H_{85}NO_5$ **Mol. Wt.:** 684
Source: semisynthetic, yeast (*Pichia ciferri*) **Purity:** 98% by TLC, HPLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol, 4:1; warm ethanol
Storage: –20°C

2095 **N-(S)-*alpha*-Hydroxytetracosanoyl-phytosphingosine** **1 mg**
NEW N-(S)-*alpha*-Hydroxy-C24:0-phytoceramide; N-(S)-Cerebronoyl-phytoceramide

$C_{42}H_{85}NO_5$ **Mol. Wt.:** 684
Source: semisynthetic, yeast (*Pichia ciferri*) **Purity:** 98% by TLC, HPLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol, 4:1; warm ethanol
Storage: –20°C

2210 **N-*omega*-CD_3-Octadecanoyl-phytosphingosine** **1 mg**
NEW N-C18:0-CD_3-Phytoceramide; N-Stearoyl-CD_3-phytosphingosine

$C_{36}H_{70}D_3NO_4$ **Mol. Wt.:** 587
Source: semisynthetic, yeast (*Pichia ciferri*) **Purity:** 98+% by TLC, HPLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, DMF, DMSO
Storage: –20°C

2211 **N-Hexanoyl-biotin-phytosphingosine** **5 mg**
NEW N-C6:0-biotin-Phytoceramide

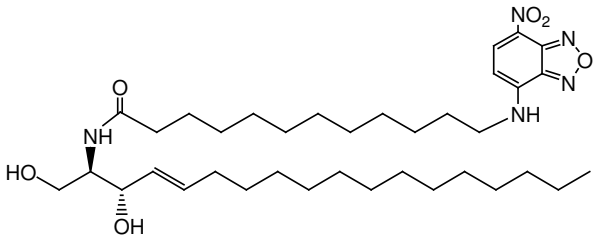
$C_{34}H_{64}N_4O_6S$ **Mol. Wt.:** 657
Source: semisynthetic, yeast (*Pichia ciferri*) **Purity:** 98+% by TLC, HPLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol, 2:1; DMF
Storage: –20°C

Fluorescent Ceramides

Absorption: 460 nm Emission: 535 nm

1841 **N-Hexanoyl-NBD-D-*erythro*-sphingosine** **100 µg**
1841-001 N-C6:0-NBD-Ceramide; N-C6:0-NBD-D-*erythro*-Sphingosine **1 mg**

$C_{30}H_{49}N_5O_6$ **Mol. Wt.:** 576 **CAS#:** 86701-10-2
Source: synthetic **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, ethanol, methanol
Storage: –20°C



1618 **N-Dodecanoyl-NBD-D-*erythro*-sphingosine** **100 µg**
1618-001 N-C12:0-NBD-Ceramide; N-C12:0-NBD-D-*erythro*-Sphingosine **1 mg**

$C_{36}H_{61}N_5O_6$ **Mol. Wt.:** 660 **CAS#:** 202850-01-9
Source: synthetic **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** methanol, chloroform/methanol, 2:1
Storage: –20°C

1857 **N-Hexanoyl-NBD-L-*threo*-sphingosine** **100 µg**
1857-001 N-C6:0-NBD-Ceramide; N-C6:0-NBD-L-*threo*-Sphingosine **1 mg**

$C_{30}H_{49}N_5O_6$ **Mol. Wt.:** 576
Source: synthetic **Purity:** 98+% by TLC
Appearance: solid **Solubility:** chloroform, ethanol, methanol
Storage: –20°C

1620 **N-Dodecanoyl-NBD-L-*threo*-sphingosine** **100 µg**
N-C12:0-NBD-Ceramide; N-C12:0-NBD-L-*threo*-Sphingosine, fluorescent

$C_{36}H_{61}N_5O_6$ **Mol. Wt.:** 660 **CAS#:** 474943-08-3
Source: synthetic **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** methanol, chloroform/methanol, 2:1
Storage: –20°C

1624 **N-Hexanoyl-NBD-L-*threo*-dihydrosphingosine** **100 µg**
N-C6:0-NBD-Dihydroceramide; N-C6:0-NBD-L-*threo*-Dihydrosphingosine

$C_{30}H_{51}N_5O_6$ **Mol. Wt.:** 578
Source: synthetic **Purity:** 98+% by TLC
Appearance: solid **Solubility:** methanol, chloroform/methanol, 2:1
Storage: –20°C

1623 **N-Dodecanoyl-NBD-L-*threo*-dihydrosphingosine** **100 µg**
N-C12:0-NBD-Dihydroceramide; N-C12:0-NBD-L-*threo*-Dihydrosphingosine

$C_{36}H_{63}N_5O_6$ **Mol. Wt.:** 662 **CAS#:** 474943-07-2
Source: synthetic **Purity:** 98+% by TLC
Appearance: solid **Solubility:** methanol, chloroform/methanol, 2:1
Storage: –20°C

1626 **N-Hexanoyl-NBD-D-*erythro*-dihydrosphingosine** **100 µg**
N-C6:0-NBD-Dihydroceramide; N-C6:0-NBD-D-*erythro*-Dihydrosphingosine

$C_{30}H_{51}N_5O_6$ **Mol. Wt.:** 578 **CAS#:** 114301-95-0
Source: synthetic **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** methanol, chloroform/methanol, 2:1
Storage: –20°C

1625 **N-Dodecanoyl-NBD-D-*erythro*-dihydrosphingosine** **100 µg**
N-C12:0-NBD-Dihydroceramide; N-C12:0-NBD-D-*erythro*-Dihydrosphingosine

$C_{36}H_{63}N_5O_6$ **Mol. Wt.:** 662
Source: synthetic **Purity:** 98+% by TLC
Appearance: solid **Solubility:** methanol, chloroform/methanol, 2:1
Storage: –20°C

1628 **N-Hexanoyl-NBD-phytosphingosine** **100 µg**
N-C6:0-NBD-Phytoceramide; N-C6:0-NBD-Phytosphingosine

$C_{30}H_{51}N_5O_7$ **Mol. Wt.:** 594 **CAS#:** 477239-93-3
Source: semisynthetic, bacteria **Purity:** 98+% by TLC
Appearance: solid **Solubility:** methanol, chloroform/methanol, 2:1
Storage: –20°C

1627 **N-Dodecanoyl-NBD-phytosphingosine** **100 µg**
N-C12:0-NBD-Phytoceramide; N-C12:0-NBD-Phytosphingosine

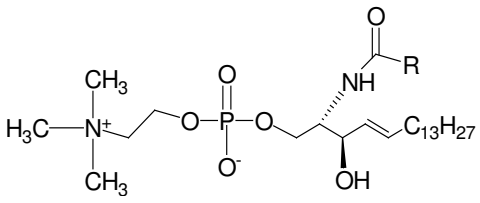
$C_{36}H_{63}N_5O_7$ **Mol. Wt.:** 678 **CAS#:** 388566-94-7
Source: semisynthetic, bacteria **Purity:** 98+% by TLC
Appearance: solid **Solubility:** methanol, chloroform/methanol, 2:1
Storage: –20°C

See Labeled Standards section (page 96) for additional fluorescent labeled products.

Compounds with fluorescent labels other than NBD are available on custom basis. Contact Technical Service for more information. 814-355-1030

Phosphosphingolipids

Sphingomyelins



1051 **Sphingomyelin, bovine** **25 mg**
1051-1 SPM; Ceramide-1-phosphorylcholine **1 g**

$C_{41}H_{83}N_2O_6P$ **Mol. Wt.:** 731 (stearoyl) **CAS#:** 85187-10-6
Source: natural, bovine **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, ethanol, methanol
Storage: –20°C
See Table III (pg. 104) for typical fatty acid content of products prepared from natural sources.

1328 **Sphingomyelin, porcine RBC** **25 mg**
SPM; Ceramide-1-phosphorylcholine

$C_{47}H_{95}N_2O_6P$ **Mol. Wt.:** 815 (lignoceroyl) **CAS#:** 85187-10-6
Source: natural, porcine RBC **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, ethanol
Storage: –20°C
See Table III (pg. 106) for typical fatty acid content of products prepared from natural sources.

1329 **Sphingomyelin, bovine buttermilk** **25 mg**
SPM; Ceramide-1-phosphorylcholine

$C_{46}H_{93}N_2O_6P$ **Mol. Wt.:** 801 (tricosanoyl) **CAS#:** 85187-10-6
Source: natural, bovine buttermilk **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, ethanol
Storage: –20°C
See Table III (pg. 106) for typical fatty acid content of products prepared from natural sources.

1332 **Sphingomyelin, egg** **25 mg**
SPM; Ceramide-1-phosphorylcholine

$C_{39}H_{79}N_2O_6P$ **Mol. Wt.:** 703 (palmitoyl)
Source: natural, chicken egg **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, methanol, warm ethanol
Storage: –20°C
See Table III (pg. 107) for typical fatty acid content of products prepared from natural sources.

1907 **N-Acetyl-sphingosylphosphorylcholine** **5 mg**
N-C2:0-Sphingomyelin

$C_{25}H_{51}N_2O_6P$ **Mol. Wt.:** 506
Source: semisynthetic, bovine buttermilk **Purity:** 98+% by TLC
Appearance: solid **Solubility:** ethanol, chloroform/methanol, 2:1
Storage: –20°C
Note: Mixture of D-*erythro* and L-*threo* isomers

1890 **N-Heptadecanoyl-sphingosylphosphorylcholine** **5 mg**
N-C17:0-Sphingomyelin

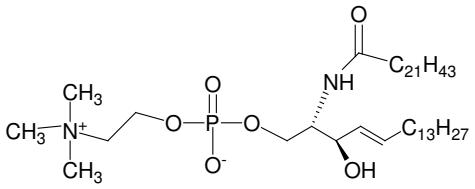
$C_{40}H_{81}N_2O_6P$ **Mol. Wt.:** 717
Source: semisynthetic, bovine buttermilk **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, ethanol, methanol
Storage: –20°C
Note: Mixture of D-*erythro* and L-*threo* isomers

1911 **N-Octadecanoyl-sphingosylphosphorylcholine** **5 mg**
N-C18:0-Sphingomyelin; N-Stearoyl-sphingosylphosphorylcholine

$C_{41}H_{83}N_2O_6P$ **Mol. Wt.:** 731 **CAS#:** 58909-84-5
Source: semisynthetic, bovine buttermilk **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, ethanol, methanol
Storage: –20°C
Note: Mixture of D-*erythro* and L-*threo* isomers

1917 **N-Eicosanoyl-D-*erythro*-sphingosylphosphorylcholine** **500 µg**
N-C20:0-Sphingomyelin

$C_{43}H_{87}N_2O_6P$ **Mol. Wt.:** 759 **CAS#:** 121999-68-6
Source: semisynthetic, bovine buttermilk **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** ethanol, methanol, chloroform/methanol, 14:1
Storage: –20°C



1918 **N-Docosanoyl-D-*erythro*-sphingosylphosphorylcholine** **500 µg**
N-C22:0-Sphingomyelin

$C_{45}H_{91}N_2O_6P$ **Mol. Wt.:** 787
Source: semisynthetic, bovine buttermilk **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** ethanol, methanol, chloroform/methanol, 14:1
Storage: –20°C

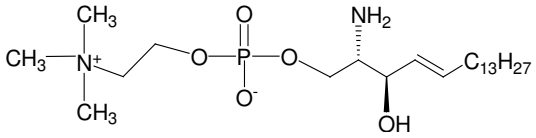
2200 **N-1-^{13}C-Hexadecanoyl-D-*erythro*-sphingosylphosphorylcholine** **1 mg**
D-*erythro*-Sphingomyelin with 1-^{13}C-palmitic acid;
N-1-^{13}C-Palmitoyl-sphingosylphosphorylcholine

$C_{38}{}^{13}CH_{79}N_2O_6P$ **Mol. Wt.:** 703
Source: semisynthetic, bovine buttermilk **Purity:** 98+% by TLC
Appearance: solid **Solubility:** chloroform, ethanol, methanol
Storage: –20°C

1327 **N-Acyl-D-*erythro*-sphingosylphosphorylethanolamine** **5 mg**
Ceramide phosphorylethanolamine

$C_{43}H_{87}N_2O_6P$ **Mol. Wt.:** 773 (tricosanoyl)
Source: semisynthetic, bovine buttermilk **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol, 2:1
Storage: –20°C

Sphingosylphosphorylcholines (SPC)



1318 **D-*erythro*-Sphingosylphosphorylcholine** **5 mg**
D-*erythro*-SPC

$C_{23}H_{49}N_2O_5P$ **Mol. Wt.:** 465 **CAS#:** 1670-26-4
Source: semisynthetic, bovine buttermilk **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol, 2:1
Storage: –20°C

1319 **L-*threo*-Sphingosylphosphorylcholine** **5 mg**
L-*threo*-SPC

$C_{23}H_{49}N_2O_5P$ **Mol. Wt.:** 465
Source: semisynthetic, bovine buttermilk **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol, 2:1
Storage: –20°C

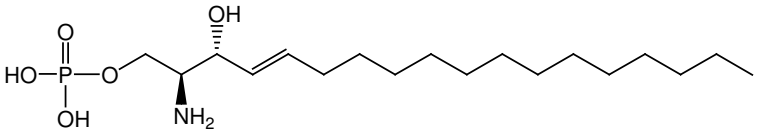
1321 **Sphingosylphosphorylcholine** **10 mg**
1321-05 *lyso*-Sphingomyelin; SPC (mixture of D-*erythro* and L-*threo* isomers) **50 mg**

$C_{23}H_{49}N_2O_5P$ **Mol. Wt.:** 465 **CAS#:** 82970-80-7
Source: semisynthetic, bovine buttermilk **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol, 2:1
Storage: –20°C

1913 ***lyso*-Dihydrosphingomyelin** **1 mg**
Dihydrosphingosylphosphorylcholine (mixture of D-*erythro* and L-*threo* isomers)

$C_{23}H_{51}N_2O_5P$ **Mol. Wt.:** 467
Source: semisynthetic, bovine buttermilk **Purity:** 98+% by TLC
Appearance: solid **Solubility:** chloroform/methanol, 2:1
Storage: –20°C

Sphingosine and Ceramide Phosphates



1803 **D-*erythro*-Sphingosine-1-phosphate** **5 mg**
S-1-P

$C_{18}H_{38}NO_5P$ **Mol. Wt.:** 380 **CAS#:** 26993-30-6
Source: synthetic **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform plus a few drops of TFA,
Storage: –20°C chloroform/methanol/40% dimethylamine, 5:15:3, 1mg/ml

1852 **D-*erythro*-Dihydrosphingosine-1-phosphate** **5 mg**

$C_{18}H_{40}NO_5P$ **Mol. Wt.:** 382 **CAS#:** 19794-97-9
Source: synthetic **Purity:** 98+% by TLC
Appearance: solid **Solubility:** chloroform/methanol/40% dimethylamine, 5:15:3, 1mg/ml
Storage: –20°C

2046 **N-Hexadecanoyl-D-*erythro*-sphingosine-1-phosphate (NH_4^+ salt)** **5 mg**
N-C16:0-Ceramide-1-phosphate

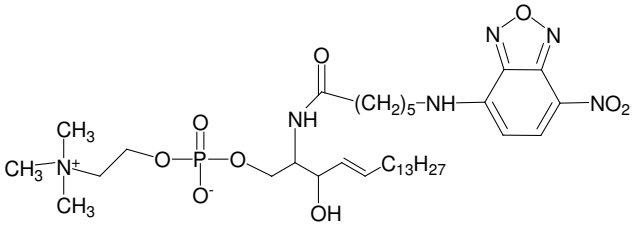
$C_{34}H_{68}NO_6P \bullet NH_3$ **Mol. Wt.:** 618
Source: synthetic **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol/acetic acid, 60:15:25
Storage: –20°C chloroform/methanol/7.5M ammonium hydroxide 80:20:4

2206 **N-*omega*-CD_3-Octadecanoyl-D-*erythro*-sphingosine-1-phosphate** **1 mg**
N-C18:0-CD_3-Ceramide-1-phosphate; N-Stearoyl-CD_3-C1P

$C_{36}H_{69}D_3NO_6P$ **Mol. Wt.:** 649
Source: synthetic **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol/acetic acid, 60:15:25
Storage: −20°C chloroform/methanol/7.5M ammonium hydroxide 80:20:4

Fluorescent Sphingomyelins

Absorption: 460 nm Emission: 535 nm



1912 **N-Hexanoyl-NBD-sphingosylphosphorylcholine** **100 µg**
1912-001 N-C6:0-NBD-Sphingomyelin; N-C6:0-NBD-Sphingosylphosphorylcholine **1 mg**

$C_{35}H_{61}N_6O_9P$ **Mol. Wt.:** 740 **CAS#:** 94885-04-8
Source: semisynthetic, bovine buttermilk **Purity:** 98+% by TLC
Appearance: solid **Solubility:** chloroform, ethanol, methanol
Storage: −20°C
Note: Mixture of D-*erythro* and L-*threo* isomers

1619 **N-Dodecanoyl-NBD-sphingosylphosphorylcholine** **100 µg**
1619-001 N-C12:0-NBD-Sphingomyelin; N-C12:0-NBD-Sphingosylphosphorylcholine **1 mg**

$C_{41}H_{73}N_6O_9P$ **Mol. Wt.:** 825 **CAS#:** 254117-01-6
Source: semisynthetic, bovine buttermilk **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** methanol, chloroform/methanol, 2:1
Storage: −20°C
Note: Mixture of D-*erythro* and L-*threo* isomers

See Labeled Standards section (page 96) for additional fluorescent labeled products.

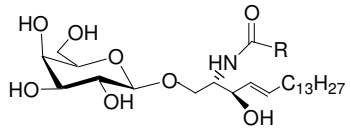
Compounds with fluorescent labels other than NBD are available on custom basis. Contact Technical Service for more information. 814-355-1030

Glycosphingolipids

Glycosphingolipids are widely distributed in animal and plant tissues. They consist of a ceramide (Cer) bound in glycosidic linkage through the primary hydroxyl to a mono- or oligosaccharide, which may contain substituents such as a sulfate, acetate, or phosphate group. They are amphiphilic and the less glycosylated compounds can be dispersed in buffers by dissolving them in a detergent or organic solvent (EtOH, DMSO, isoPrOH) and mixing by sonication.

Galactosphingolipids, mainly GalCer (cerebrosides) and its sulfate ester, occur in large amounts in the nervous system. Glucosphingolipids, the simplest of which is GlcCer (glucocerebrosides), are very widely distributed, particularly in nerve cell membranes. GlcCer is isolated from a variety of natural sources including human, bovine, and plant. Each of these sources has a heterogeneity in the fatty acid content of the ceramide as well as an occasional variation in the sphingoid chain. Globosides (containing both glucose and galactose) are a prominent group of glycosphingolipids, they contain an α-linked galactose moiety and are typically located in blood cell membranes. Gangliosides are another prominent group of glycosphingolipids; they are acidic because of substitution with sialic (neuraminic) acid. The glycosphingolipids function in a wide range of enzyme and structural interactions, such as immunological or membrane recognition phenomena, binding of microbial pathogens, hormone and growth factor actions, cancer cell growth and malignancy, atheroscerosis, genetic disease errors, blood group determinants, etc. Tissues change in glycosphingolipid composition during embryogenesis, maturation, aging, and other vital physiological processes. Some glycosphingolipids stimulate cell proliferation, others induce apoptosis, effects of great significance to cancer therapy and maturational development. Marked differences in glycosphingolipid composition are seen in normal and cancerous cells. See references (13-25).
See Literature References on page 109.

Galactosylceramides



Galactosylceramide

1050 **Cerebrosides, bovine** **50 mg**
Galactosylceramide; Ceramide *beta*-D-galactoside
Contains both hydroxy and non-hydroxy fatty acid side chains

$C_{48}H_{93}NO_9$ **Mol. Wt.:** 828 (2-hydroxytetracosanoyl) **CAS#:** 85305-88-0
Source: natural, bovine **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol, 2:1; DMSO
Storage: −20°C
See Table III (pg. 104) for typical fatty acid content of products prepared from natural sources.

1066 **Cerebroside; Kerasin (top spot)** **10 mg**
Galactosylceramide with mostly non-hydroxy fatty acid side chain

$C_{48}H_{91}NO_8$ **Mol. Wt.:** 810 (nervonyl, [24:1]) **CAS#:** 536-13-0
Source: natural, bovine **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol/DI water, 2:1:0.5
Storage: −20°C
See Table III (pg. 105) for typical fatty acid content of products prepared from natural sources.

1138 **Cerebroside; Phrenosin (bottom spot)** **10 mg**
Galactosylceramide with mostly 2-hydroxy fatty acid side chains

$C_{42}H_{81}NO_9$ **Mol. Wt.:** 744 (2-hydroxystearoyl) **CAS#:** 37211-11-3
Source: natural, bovine **Purity:** 98+% by TLC
Appearance: solid **Solubility:** chloroform/methanol/DI water, 2:1:0.5
Storage: −20°C
See Table III (pg. 106) for typical fatty acid content of products prepared from natural sources.

1305 **Psychosine (free amine form), bovine** **10 mg**
lyso-Cerebroside; 1-*beta*-D-Galactosylsphingosine

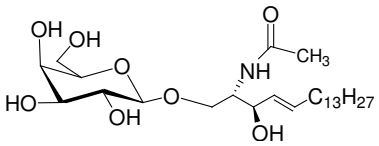
$C_{24}H_{47}NO_7$ **Mol. Wt.:** 461 **CAS#:** 2238-90-6
Source: semisynthetic, bovine **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** ethanol, chloroform/methanol/DI water, 5:1:0.1
Storage: –20°C

2087 **Psychosine, synthetic** **5 mg**
lyso-Cerebroside; 1-*beta*-D-Galactosylsphingosine

$C_{24}H_{47}NO_7$ **Mol. Wt.:** 461 **CAS#:** 2238-90-6
Source: synthetic **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** ethanol, chloroform/methanol/DI water, 5:1:0.1
Storage: –20°C

2091 **N-Glycinated galactosylsphingosine** **1 mg**
NEW N-Glycinated cerebroside; N-Glycinated galactosylceramide; N-Glycinated psychosine

$C_{26}H_{50}N_2O_8$ **Mol. Wt.:** 518
Source: synthetic **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol, 4:1, ethanol
Storage: –20°C



1325 **N-Acetyl-psychosine** **10 mg**
N-C2:0-Cerebroside

$C_{26}H_{49}NO_8$ **Mol. Wt.:** 503 **CAS#:** 35823-61-1
Source: semisynthetic, bovine **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, ethanol, methanol
Storage: –20°C

1334 **N-Octanoyl-*beta*-D-galactosylceramide** **10 mg**
N-C8:0-Galactosylceramide

$C_{32}H_{61}NO_8$ **Mol. Wt.:** 588 **CAS#:** 41613-16-5
Source: semisynthetic, bovine **Purity:** 98+% by TLC
Appearance: solid **Solubility:** ethanol, methanol, chloroform/methanol, 9:1
Storage: –20°C

1937 **N-Dodecanoyl-*beta*-D-galactosylceramide** **10 mg**
1937-50 N-C12:0-Galactosylceramide; N-Dodecanoyl-*beta*-D-galactosylsphingosine **50 mg**

$C_{36}H_{69}NO_8$ **Mol. Wt.:** 644
Source: semisynthetic, bovine **Purity:** 98+% by TLC, HPLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** ethanol, methanol, chloroform/methanol, 9:1
Storage: –20°C

1335 **N-Pentadecanoyl-psychosine** **5 mg**
N-C15:0-Cerebroside

$C_{39}H_{75}NO_8$ **Mol. Wt.:** 686
Source: semisynthetic, bovine **Purity:** 98+% by TLC
Appearance: solid **Solubility:** chloroform/ methanol, 2:1
Storage: –20°C

1914 **N-Octadecanoyl-D_{35}-psychosine, (perdeuterated, C18:0 fatty acid)** **5 mg**
N-C18:0-D_{35}-Cerebroside, perdeuterated; N-Stearoyl-D_{35}-psychosine, perdeuterated

$C_{42}H_{46}D_{35}NO_8$ **Mol. Wt.:** 763
Source: semisynthetic, bovine **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, hot ethanol, chloroform/methanol, 2:1
Storage: –20°C
Activity: Deuterium labeled stearoyl side chain

1621 **N-Hexanoyl-NBD-galactosylceramide** **100 µg**
N-C6:0-NBD-*beta*-D-Galactosylsphingosine; N-C6:0-NBD-Cerebroside;
N-C6:0-NBD-Galactosylceramide, fluorescent; N-(NBD-Aminocaproyl)-D-galactosylsphingosine

$C_{36}H_{59}N_5O_{11}$ **Mol. Wt.:** 738 **CAS#:** 170212-26-7
Source: semisynthetic, bovine **Purity:** 98+% by TLC
Appearance: solid **Solubility:** methanol, chloroform/methanol, 5:1
Storage: –20°C

1633 **N-Dodecanoyl-NBD-galactosylceramide** **100 µg**
1633-001 N-C12:0-NBD-*beta*-D-Galactosylsphingosine; N-C12:0-NBD-Cerebroside **1 mg**

$C_{42}H_{71}N_5O_{11}$ **Mol. Wt.:** 822 **CAS#:** 474942-98-8
Source: semisynthetic, bovine **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, DMSO, chloroform/methanol, 2:1
Storage: –20°C
Absorption: 460 nm **Emission:** 535 nm

2204 **Lissamine-rhodamine B-dodecanoyl-galactosylceramide** **500 µg**
Sulforhodamine B-C12:0 cerebroside

$C_{63}H_{99}N_4O_{14}S_2$ **Mol. Wt.:** 1201
Source: semisynthetic, bovine **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol 8:2, DMSO, DMF
Storage: –20°C
Absorption: 540 nm **Emission:** 565 nm

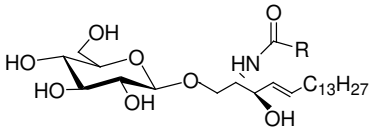
2203 **N-Hexanoyl-biotin-galactosylceramide** **5 mg**
N-C6:0-biotin-*beta*-D-Galactosylsphingosine; N-C6:0-biotin-Cerebroside

$C_{40}H_{72}N_4O_{10}S$ **Mol. Wt.:** 801
Source: semisynthetic, bovine **Purity:** 98+% by TLC, HPLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol 2:1, methanol, DMF
Storage: –20°C

1946 **N-(1-Adamantaneacetyl)-galactosylceramide** **5 mg**
N-(1-Adamantaneacetyl)-galactocerebroside

$C_{36}H_{63}NO_8$ **Mol. Wt.:** 638
Source: semisynthetic, bovine **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, methanol, chloroform/methanol 9:1
Storage: –20°C
Activity: Inhibitor of glucosylceramide, sulfatide, and globotriaosylceramide (Gb_3) synthesis

Glucosylceramides



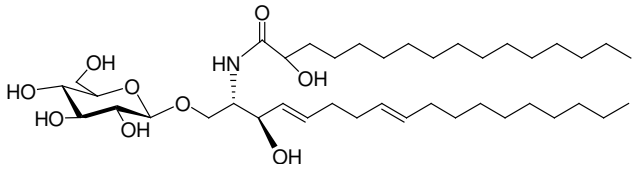
Glucosylceramide

1057 **Glucocerebrosides, Gaucher's spleen** **5 mg**
1057-25 Glucosylceramide; Ceramide *beta*-D-glucoside **25 mg**

$C_{48}H_{93}NO_8$ **Mol. Wt.:** 812 (lignoceryl) **CAS#:** 85305-87-9
Source: natural, human **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol, 2:1
Storage: –20°C
See Table III (pg. 105) for typical fatty acid content of products prepared from natural sources.

1521 **Glucocerebrosides, buttermilk** **5 mg**
1521-50 Glucosylceramide; Ceramide *beta*-D-glucoside **50 mg**

$C_{46}H_{89}NO_8$ **Mol. Wt.:** 784 (docosanoyl)
Source: natural, bovine buttermilk **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol, 2:1
Storage: –20°C
See Table III (pg. 108) for typical fatty acid content of products prepared from natural sources.



1522 **Glucocerebrosides, plant** **5 mg**
1522-100 Glucosylceramide; Ceramide *beta*-D-glucoside **100 mg**

$C_{40}H_{75}NO_9$ **Mol. Wt.:** 714 (2-hydroxyhexadecanoyl) **CAS#:** 497155-61-0
Source: natural, plant **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol, 2:1
Storage: –20°C
Sphingoid backbone is >95% 4,8-sphingadiene (d18:2 t,t-4,8) and most of the fatty acids are of the 2-hydroxy type.
See Table III (pg. 108) for typical fatty acid content of products prepared from natural sources.

2086 **Glucosylsphingosine, synthetic** **5 mg**
lyso-Glucocerebroside; 1-*beta*-D-Glucosylsphingosine; Glucosylpsychosine

$C_{24}H_{47}NO_7$ **Mol. Wt.:** 461 **CAS#:** 52050-17-6
Source: synthetic **Purity:** 98+% by TLC, HPLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** ethanol, methanol, chloroform/methanol, 2:1
Storage: –20°C

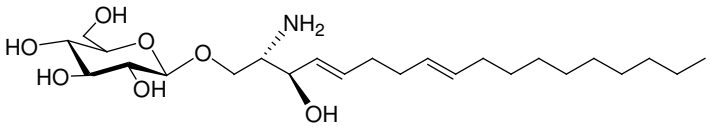
2209 **$^{13}C_6$-Glucosylsphingosine** **1 mg**
NEW 1-(*beta*-D-Glucosyl-1,2,3,4,5,6-$^{13}C_6$)-sphingosine; $^{13}C_6$-*lyso*-Glucocerebroside

$C_{18}{}^{13}C_6H_{47}NO_7$ **Mol. Wt.:** 468
Source: synthetic **Purity:** 98+% by TLC, HPLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** ethanol, methanol, chloroform/methanol, 2:1
Storage: –20°C

1306 **Glucosylsphingosine, buttermilk** **5 mg**

Glucopsychosine; *lyso*-Glucocerebroside; 1-*beta*-D-Glucosylsphingosine

$C_{24}H_{47}NO_7$ **Mol. Wt.:** 461 **CAS#:** 52050-17-6
Source: semisynthetic, bovine buttermilk **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** ethanol, methanol, chloroform/methanol, 2:1
Storage: –20°C



1310 **Glucosylsphingosine, plant** **5 mg**

Glucopsychosine; *lyso*-Glucocerebroside; 1-*beta*-D-Glucosylsphingadienine

$C_{24}H_{45}NO_7$ **Mol. Wt.:** 460 (based on 1-*beta*-D-glucosylsphinga-4,8-dienine) **CAS#:** 114200-59-8
Source: semisynthetic, plant **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol, 4:1
Storage: –20°C
Sphingoid backbone is >95% 4,8-sphinganine (d18:2 *trans*,*trans*-4,8).

2089 **N-Glycinated glucosylsphingosine** **1 mg**

N-Glycine glucopsychosine; N-Glycinated 1-*beta*-D-*lyso*-glucosylceramide

$C_{26}H_{50}N_2O_8$ **Mol. Wt.:** 519
Source: synthetic **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol, 8:2; DMSO; DMF
Storage: –20°C

1539 **N-Hexanoyl-glucosylceramide** **5 mg**

N-C6:0-Glucocerebroside; N-Hexanoyl-*beta*-D-glucosylsphingosine

$C_{30}H_{55}NO_8$ **Mol. Wt.:** 558
Source: semisynthetic, plant **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, methanol, DMF, DMSO
Storage: –20°C

1531 **N-Docosanoyl-glucopsychosine** **1 mg**

N-C22:0-Glucocerebroside; N-Docosanoyl-*beta*-glucosylsphingosine

$C_{46}H_{89}NO_8$ **Mol. Wt.:** 784
Source: semisynthetic, bovine buttermilk **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform
Storage: –20°C

1533 **N-*omega*-CD_3-Hexadecanoyl-glucopsychosine** **1 mg**

N-C16:0-CD_3-Glucopsychosine; N-C16:0-CD_3-Glucocerebroside; N-Palmitoyl-CD_3-glucopsychosine

$C_{40}H_{74}D_3NO_8$ **Mol. Wt.:** 703
Source: semisynthetic, bovine buttermilk **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol, 2:1
Storage: –20°C

1622 **N-Hexanoyl-NBD-glucosylceramide** **100 µg**
1622-001 N-C6:0-NBD-*beta*-D-Glucosylsphingosine; **1 mg**
N-C6:0-NBD-Glucosylceramide, fluorescent

$C_{36}H_{59}N_5O_{11}$ **Mol. Wt.:** 738 **CAS#:** 94885-03-7
Source: semisynthetic, bovine **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** methanol, chloroform/methanol, 5:1
Storage: –20°C
Absorption: 460 nm **Emission:** 535 nm

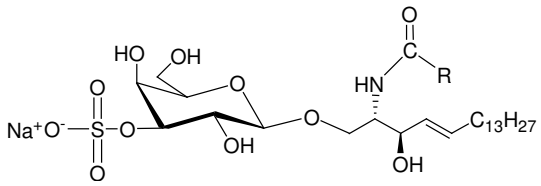
2085 **N-Hexanoyl-biotin-glucosylceramide** **5 mg**
N-C6:0-biotin-*beta*-D-Glucosylsphingosine; N-C6:0-biotin-Glucosylceramide

$C_{40}H_{72}N_4O_{10}S$ **Mol. Wt.:** 801
Source: semisynthetic, plant **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol 2:1, methanol, DMF
Storage: –20°C

1945 **N-(1-Adamantaneacetyl)-glucosylceramide** **5 mg**
N-(1-Adamantaneacetyl)-glucocerebroside

$C_{36}H_{61}NO_8$ **Mol. Wt.:** 636
Source: semisynthetic, plant **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, methanol, chloroform/methanol, 9:1
Storage: –20°C
Activity: Inhibitor of glucocerebrosidase and lactosylceramide synthase

Sulfatides (Sulfogalactosylceramides)



1049 **Sulfatides (Na^+ salt), bovine** **50 mg**
Ceramide-galactoside-3-sulfate; Cerebroside sulfate

$C_{42}H_{80}NNaO_{11}S$ **Mol. Wt.:** 830 (stearoyl) Na^+ salt **CAS#:** 85496-63-5
Source: natural, bovine **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** DMSO, chloroform/methanol/DI water, 2:1:0.1
(if needed, a few drops of acetic acid)
Storage: –20°C
See Table III (pg. 104) for typical fatty acid content of products prepared from natural sources.

1904 ***lyso*-Sulfatide (NH_4^+ salt)** **1 mg**
Sphingosine-1-galactoside-3-sulfate

$C_{24}H_{47}NO_{10}S•NH_3$ **Mol. Wt.:** 542 **CAS#:** 38621-58-8
Source: semisynthetic, bovine **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol, 2:1
Storage: –20°C

2092 **N-Glycinated *lyso*-sulfatide** **1 mg**
NEW N-Glycinated sphingosine-1-galactoside-3-sulfate

$C_{26}H_{50}N_2O_{11}S$ **Mol. Wt.:** 599
Source: semisynthetic, bovine **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol/DI water, 70:30:4; ethanol
Storage: –20°C

2076 **N-Acetyl-sulfatide** **1 mg**

N-C2:0-Sulfatide; N-Acetyl-sphingosyl-*beta*-D-galactoside-3-sulfate

$C_{26}H_{49}NO_{11}S$ **Mol. Wt.:** 584
Source: semisynthetic, bovine **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** ethanol, methanol, chloroform/methanol, 1:1
Storage: –20°C

1938 **N-Dodecanoyl-sulfatide** **1 mg**

N-C12:0-Sulfatide; N-Dodecanoyl-sphingosyl-*beta*-D-galactoside-3-sulfate

$C_{36}H_{69}NO_{11}S$ **Mol. Wt.:** 724
Source: semisynthetic, bovine **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol, 9:1, DMF
Storage: –20°C

1875 **N-Hexadecanoyl-sulfatide** **1 mg**

N-C16:0-Sulfatide; N-Palmitoyl-sulfatide;
N-Palmitoyl-sphingosyl-*beta*-D-galactoside-3-sulfate

$C_{40}H_{77}NO_{11}S$ **Mol. Wt.:** 780
Source: semisynthetic, bovine **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol, 2:1
Storage: –20°C

1934 **N-Heptadecanoyl-sulfatide** **1 mg**

N-C17:0-Sulfatide; N-Heptadecanoyl-sphingosyl-*beta*-D-galactoside-3-sulfate

$C_{41}H_{79}NO_{11}S$ **Mol. Wt.:** 794
Source: semisynthetic, bovine **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol, 5:1, DMSO, DMF
Storage: –20°C

1932 **N-Octadecanoyl-sulfatide** **1 mg**

N-C18:0-Sulfatide; N-Octadecanoyl-sphingosyl-*beta*-D-galactoside-3-sulfate

$C_{42}H_{81}NO_{11}S$ **Mol. Wt.:** 808 **CAS#:** 244215-65-4
Source: semisynthetic, bovine **Purity:** 98+% by TLC
Appearance: solid **Solubility:** chloroform/methanol, 5:1
Storage: –20°C

1933 **N-Octadecenoyl-(*cis*-9)-sulfatide** **1 mg**

N-C18:1-Sulfatide; N-Octadecenoyl-sphingosyl-*beta*-D-galactoside-3-sulfate

$C_{42}H_{79}NO_{11}S$ **Mol. Wt.:** 806
Source: semisynthetic, bovine **Purity:** 98+% by TLC
Appearance: solid **Solubility:** chloroform/methanol, 5:1
Storage: –20°C

1935 **N-Nonadecanoyl-sulfatide** **1 mg**

N-C19:0-Sulfatide; N-Nonadecanoyl-sphingosyl-*beta*-D-galactoside-3-sulfate

$C_{43}H_{83}NO_{11}S$ **Mol. Wt.:** 822
Source: semisynthetic, bovine **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol, 5:1, DMSO, DMF
Storage: –20°C

1888 **N-Tetracosanoyl-sulfatide** **1 mg**
N-C24:0-Sulfatide; N-Tetracosanoyl-sphingosyl-*beta*-D-galactoside-3-sulfate;
N-Lignoceroyl-sulfatide

$C_{48}H_{93}NO_{11}S$ **Mol. Wt.:** 892
Source: semisynthetic, bovine **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol, 5:1
Storage: –20°C

1931 **N-Tetracosenoyl-(*cis*-15)-sulfatide** **1 mg**
N-Nervonyl-sulfatide; N-C24:1-Sulfatide;
N-Tetracosenoyl-sphingosyl-*beta*-D-galactoside-3-sulfate

$C_{48}H_{91}NO_{11}S$ **Mol. Wt.:** 890
Source: semisynthetic, bovine **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol, 5:1
Storage: –20°C

1536 **N-*omega*-CD_3-Octadecanoyl-sulfatide** **1 mg**
N-C18:0-CD_3-Sulfatide; N-Stearoyl-CD_3-sulfatide

$C_{42}H_{78}D_3NO_{11}S$ **Mol. Wt.:** 811
Source: semisynthetic, bovine **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol/DI water, 2:1:0.1
Storage: –20°C

1632 **N-Dodecanoyl-NBD-sulfatide** **100 µg**
1632-001 **1 mg**
N-C12:0-NBD-Sulfatide; N-Dodecanoyl-NBD-*lyso*-sulfatide;
N-Dodecanoyl-NBD-sphingosyl-*beta*-D-galactoside-3-sulfate

$C_{42}H_{71}N_5O_{14}S$ **Mol. Wt.:** 901
Source: semisynthetic, bovine **Purity:** 98+% by TLC
Appearance: solid **Solubility:** chloroform/methanol, 2:1
Storage: –20°C
Absorption: 460 nm **Emission:** 535 nm

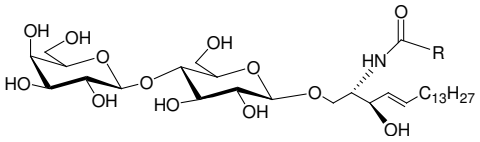
2207 **N-Hexanoyl-biotin-sulfatide** **1 mg**
N-C6:0-biotin-Sulfatide; N-Hexanoyl-biotin-sphingosyl-*beta*-D-galactoside-3-sulfate

$C_{40}H_{72}N_4O_{13}S_2$ **Mol. Wt.:** 881
Source: semisynthetic, bovine **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol/water 2:1:0.1; methanol/water 9:1; DMF
Storage: –20°C

1540 **N-Octadecanoyl-sulfated-lactosylceramide** **1 mg**
NEW SM3; N-Octadecanoyl-lactosylceramide-3'-sulfate; N-Octadecanoyl-lactosylceramide sulfatide

$C_{48}H_{91}NO_{16}S$ **Mol. Wt.:** 970
Source: synthetic **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol/DI water, 2:1:0.1
Storage: –20°C

Lactosylceramides



1500 **Lactosylceramides, porcine RBC** **1 mg**
LC; Lactocerebrosides; CDH; Ceramide *beta*-lactoside

$C_{48}H_{91}NO_{13}$ **Mol. Wt.:** 890 (stearoyl) **CAS#:** 4682-48-8
Source: natural, porcine RBC **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** DMSO, chloroform/methanol/DI water, 5:1:0.1
Storage: –20°C
See Table III (pg. 107) for typical fatty acid content of products prepared from natural sources.

1507 **Lactosylceramides, bovine buttermilk** **5 mg**
1507-50 LC; Lactocerebrosides; CDH; Ceramide *beta*-lactoside **50 mg**

$C_{53}H_{101}NO_{13}$ **Mol. Wt.:** 960 (tricosanoyl) **CAS#:** 4682-48-8
Source: natural, bovine buttermilk **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol/DI water, 5:1:0.1
Storage: –20°C
See Table III (pg. 107) for typical fatty acid content of products prepared from natural sources.

2088 ***lyso*-Lactosylceramide, synthetic** **1 mg**
Lactosylsphingosine; 1-*beta*-Lactosyl-sphing-4-enine; *lyso*-LC

$C_{30}H_{57}NO_{12}$ **Mol. Wt.:** 623
Source: synthetic **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol/DI water, 2:1:0.1, DI water, DMSO
Storage: –20°C

1517 ***lyso*-Lactosylceramide, bovine buttermilk** **1 mg**
Lactosylsphingosine; *lyso*-LC

$C_{30}H_{57}NO_{12}$ **Mol. Wt.:** 623
Source: semisynthetic, bovine buttermilk **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol/DI water, 2:1:0.1
Storage: –20°C

2090 **N-Glycinated lactosylsphingosine** **1 mg**
NEW N-Glycinated *lyso*-lactosylceramide; N-Glycine 1-*beta*-lactosyl-sphing-4-enine

$C_{32}H_{60}N_2O_{13}$ **Mol. Wt.:** 681
Source: synthetic **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol/DI water, 2:1:0.1; DI water; DMSO
Storage: –20°C

1532 **N-Hexadecanoyl-lactosylceramide** **1 mg**
N-C16:0-Lactosylceramide; N-Palmitoyl-lactosylceramide

$C_{46}H_{87}NO_{13}$ **Mol. Wt.:** 862
Source: semisynthetic, bovine buttermilk **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol/DI water, 2:1:0.1
Storage: –20°C

1534 **N-*omega*-CD_3-Hexadecanoyl-lactosylceramide** **1 mg**

N-C16:0-CD_3-Lactosylceramide; N-Palmitoyl-CD_3-lactosylceramide

$C_{46}H_{84}D_3NO_{13}$ **Mol. Wt.:** 865
Source: semisynthetic, bovine buttermilk **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol/DI water, 5:1:0.1
Storage: –20°C

1538 **N-Heptadecanoyl-lactosylceramide** **1 mg**

N-C17:0-Lactosylceramide; Lactosylceramide with C17:0 fatty acid side chain

$C_{47}H_{89}NO_{13}$ **Mol. Wt.:** 876 **CAS#:** 1354699-26-5
Source: semisynthetic, bovine buttermilk **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol/DI water, 2:1:0.1
Storage: –20°C

1629 **N-Hexanoyl-NBD-lactosylceramide** **50 µg**
1629-001 N-Hexanoyl-NBD-*beta*-D-lactosylsphingosine; **1 mg**
N-C6:0-NBD-*beta*-D-Lactosylsphingosine; N-C6:0-NBD-Lactosylceramide

$C_{42}H_{69}N_5O_{16}$ **Mol. Wt.:** 900 **CAS#:** 474943-04-9
Source: semisynthetic, bovine buttermilk **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol, 2:1
Storage: –20°C
Absorption: 460 nm **Emission:** 535 nm

1630 **N-Dodecanoyl-NBD-lactosylceramide** **50 µg**
1630-001 N-Dodecanoyl-NBD-*beta*-D-lactosylsphingosine; **1 mg**
N-C12:0-NBD-*beta*-D-Lactosylsphingosine; N-C12:0-NBD-Lactosylceramide

$C_{48}H_{81}N_5O_{16}$ **Mol. Wt.:** 984 **CAS#:** 474943-06-1
Source: semisynthetic, bovine buttermilk **Purity:** 98+% by TLC
Appearance: solid **Solubility:** chloroform/methanol, 2:1
Storage: –20°C
Absorption: 460 nm **Emission:** 535 nm

2205 **N-Hexanoyl-biotin-lactosylceramide** **1 mg**

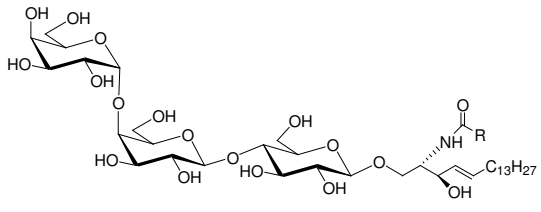
N-C6:0-biotin-*beta*-D-Lactosylceramide

$C_{46}H_{82}N_4O_{15}S$ **Mol. Wt.:** 963
Source: semisynthetic, bovine buttermilk **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol, 9:1, DMSO, DMF
Storage: –20°C

1540 **N-Octadecanoyl-sulfated-lactosylceramide** **1 mg**
NEW SM3; N-Octadecanoyl-lactosylceramide-3'-sulfate; N-Octadecanoyl-lactosylceramide sulfatide

$C_{48}H_{91}NO_{16}S$ **Mol. Wt.:** 970
Source: synthetic **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol/DI water, 2:1:0.1
Storage: –20°C

Ceramide Trihexosides (Globotriaosylceramides)



1067 **Ceramide trihexosides** **1 mg**
1067-10 CTH; Gb_3; Globotriaosylceramide **10 mg**

$C_{60}H_{113}NO_{18}$ **Mol. Wt.:** 1137 (tetracosanoyl) **CAS#:** 71965-57-6
Source: natural, porcine RBC **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** DMSO, hot methanol, chloroform/methanol, 2:1
Storage: –20°C
See Table III (pg. 105) for typical fatty acid content of products prepared from natural sources.

1513 **Ceramide trihexosides (top spot)** **500 µg**
CTH with non-hydroxy fatty acid side chain

$C_{54}H_{101}NO_{18}$ **Mol. Wt.:** 1052 (stearoyl)
Source: natural, porcine RBC **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol, 2:1
Storage: –20°C
See Table III (pg. 107) for typical fatty acid content of products prepared from natural sources.

1514 **Ceramide trihexosides (bottom spot)** **500 µg**
CTH with hydroxy fatty acid side chain

$C_{60}H_{113}NO_{19}$ **Mol. Wt.:** 1153 (2-hydroxytetracosanoyl)
Source: natural, porcine RBC **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** DMSO, hot methanol, chloroform/methanol, 1:1
Storage: –20°C
See Table III (pg. 108) for typical fatty acid content of products prepared from natural sources.

1520 ***lyso*-Ceramide trihexoside** **1 mg**
lyso-CTH; *lyso*-Globotriaosylsphingosine

$C_{36}H_{67}NO_{17}$ **Mol. Wt.:** 786 **CAS#:** 126550-86-5
Source: semisynthetic, porcine RBC **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol/DI water, 2:1:0.1; DMSO
Storage: –20°C

1530 **N-Glycinated *lyso*-ceramide trihexoside** **1 mg**
N-Glycinated globotriaosylsphingosine

$C_{38}H_{70}N_2O_{18}$ **Mol. Wt.:** 843
Source: semisynthetic, porcine RBC **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol/DI water, 2:1:0.1
Storage: –20°C

1528 **N-Hexadecanoyl-ceramide trihexoside** **500 µg**
N-C16:0-Ceramide trihexoside; N-Hexadecanoyl globotriaosylceramide

$C_{52}H_{97}NO_{18}$ **Mol. Wt.:** 1024
Source: semisynthetic, porcine RBC **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** DMSO, hot methanol, chloroform/methanol, 2:1
Storage: –20°C

1523 **N-Heptadecanoyl-ceramide trihexoside** **500 µg**

N-C17:0-Ceramide trihexoside; N-Heptadecanoyl globotriaosylceramide

$C_{53}H_{99}NO_{18}$ **Mol. Wt.:** 1038 **CAS#:** 536745-81-0
Source: semisynthetic, porcine RBC **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** DMSO, hot methanol, chloroform/methanol, 2:1
Storage: –20°C

1529 **N-Octadecanoyl-ceramide trihexoside** **500 µg**

N-C18:0-Ceramide trihexoside; N-Octadecanoyl globotriaosylceramide

$C_{54}H_{101}NO_{18}$ **Mol. Wt.:** 1052
Source: semisynthetic, porcine RBC **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** DMSO, hot methanol, chloroform/methanol, 2:1
Storage: –20°C

1524 **N-Tricosanoyl-ceramide trihexoside** **500 µg**

N-C23:0-Ceramide trihexoside; N-Tricosanoyl globotriaosylceramide

$C_{59}H_{111}NO_{18}$ **Mol. Wt.:** 1122 **CAS#:** 536745-84-3
Source: semisynthetic, porcine RBC **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** DMSO, hot methanol, chloroform/methanol, 2:1
Storage: –20°C

1631 **N-Dodecanoyl-NBD-ceramide trihexoside** **100 µg**
1631-001 N-C12:0-NBD-CTH; N-C12:0-NBD-Globotriaosylceramide **1 mg**

$C_{54}H_{91}N_5O_{21}$ **Mol. Wt.:** 1145
Source: semisynthetic, porcine RBC **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** DMSO, hot methanol, chloroform/methanol, 2:1
Storage: –20°C
Absorption: 460 nm **Emission:** 535 nm

1537 **N-*omega*-CD_3-Octadecanoyl-ceramide trihexoside** **500 µg**

N-C18:0-CD_3-CTH; N-C18:0-CD_3-Gb_3;
N-Octadecanoyl-CD_3-globotriaosylceramide;
N-Stearoyl-CD_3-ceramide trihexoside

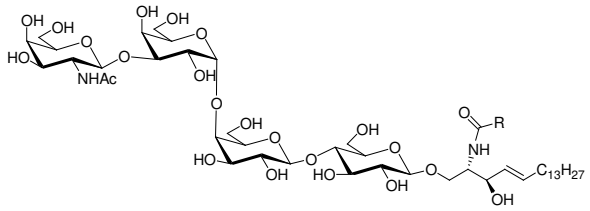
$C_{54}H_{98}D_3NO_{18}$ **Mol. Wt.:** 1055
Source: semisynthetic, porcine RBC **Purity:** 98+% by TLC, HPLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** DMSO, chloroform/methanol, 2:1
Storage: –20°C

1947 **N-(1-Adamantaneacetyl)-ceramide trihexoside** **1 mg**

N-Adamantyl-globotriaosylceramide; $AdaGb_3$

$C_{48}H_{83}N_4O_{18}$ **Mol. Wt.:** 962
Source: semisynthetic, porcine **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol, 2:1, methanol, DMF
Storage: –20°C

Globosides



1068 **Globosides** **5 mg**

Gb_4; Globotetrahexosylceramide

$C_{68}H_{126}N_2O_{23}$ **Mol. Wt.:** 1340 (tetracosanoyl) **CAS#:** 11034-93-8
Source: natural, porcine RBC **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** DMSO, hot methanol, chloroform/methanol, 2:1
Storage: –20°C
See Table III (pg. 106) for typical fatty acid content of products prepared from natural sources.

1541 ***lyso*-Globoside** **1 mg**
NEW *lyso*-Gb_4; *lyso*-Globotetrahexosylceramide

$C_{44}H_{80}N_2O_{22}$ **Mol. Wt.:** 989
Source: semisynthetic, porcine RBC **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol/water, 2:1:0.1
Storage: –20°C

Stable Isotope Labeled Glycolipids

1914 **N-Octadecanoyl-D_{35}-psychosine, (perdeuterated, C18:0 fatty acid)** **5 mg**
N-C18:0-D_{35}-Cerebroside, perdeuterated; N-Stearoyl-D_{35}-psychosine, perdeuterated

$C_{42}H_{46}D_{35}NO_8$ **Mol. Wt.:** 763
Source: semisynthetic, bovine **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, hot ethanol, chloroform/methanol, 2:1
Storage: –20°C
Activity: Deuterium labeled stearoyl side chain

2209 **$^{13}C_6$-Glucosylsphingosine** **1 mg**
NEW 1-(*beta*-D-Glucosyl-1,2,3,4,5,6-$^{13}C_6$)-sphingosine; $^{13}C_6$-*lyso*-Glucocerebroside

$C_{18}{}^{13}C_6H_{47}NO_7$ **Mol. Wt.:** 468
Source: synthetic **Purity:** 98+% by TLC, HPLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** ethanol, methanol, chloroform/methanol, 2:1
Storage: –20°C

1533 **N-*omega*-CD_3-Hexadecanoyl-glucopsychosine** **1 mg**
N-C16:0-CD_3-Glucopsychosine; N-C16:0-CD_3-Glucocerebroside;
N-Palmitoyl-CD_3-glucopsychosine

$C_{40}H_{74}D_3NO_8$ **Mol. Wt.:** 703
Source: semisynthetic, bovine buttermilk **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol, 2:1
Storage: –20°C

1536 **N-*omega*-CD_3-Octadecanoyl-sulfatide** **1 mg**
N-C18:0-CD_3-Sulfatide; N-Stearoyl-CD_3-sulfatide

$C_{42}H_{78}D_3NO_{11}S$ **Mol. Wt.:** 811
Source: semisynthetic, bovine **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol/DI water, 2:1:0.1
Storage: –20°C

1534 **N-*omega*-CD_3-Hexadecanoyl-lactosylceramide** **1 mg**
N-C16:0-CD_3-Lactosylceramide;
N-Palmitoyl-CD_3-lactosylceramide

$C_{46}H_{84}D_3NO_{13}$ **Mol. Wt.:** 865
Source: semisynthetic, bovine buttermilk **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol/DI water, 5:1:0.1
Storage: –20°C

1537 **N-*omega*-CD_3-Octadecanoyl-ceramide trihexoside** **500 µg**
N-C18:0-CD_3-CTH; N-C18:0-CD_3-Gb_3;
N-Octadecanoyl-CD_3-globotriaosylceramide;
N-Stearoyl-CD_3-ceramide trihexoside

$C_{54}H_{98}D_3NO_{18}$ **Mol. Wt.:** 1055
Source: semisynthetic, porcine RBC **Purity:** 98+% by TLC, HPLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** DMSO, chloroform/methanol, 2:1
Storage: –20°C

Fluorescent Glycolipids

Absorption: 460 nm Emission: 535 nm

1621 **N-Hexanoyl-NBD-galactosylceramide** **100 µg**
N-C6:0-NBD-*beta*-D-Galactosylsphingosine; N-C6:0-NBD-Cerebroside;
N-C6:0-NBD-Galactosylceramide, fluorescent; N-(NBD-Aminocaproyl)-D-galactosylsphingosine

$C_{36}H_{59}N_5O_{11}$ **Mol. Wt.:** 738 **CAS#:** 170212-26-7
Source: semisynthetic, bovine **Purity:** 98+% by TLC
Appearance: solid **Solubility:** methanol, chloroform/methanol, 5:1
Storage: –20°C

1633 **N-Dodecanoyl-NBD-galactosylceramide** **100 µg**
1633-001 N-C12:0-NBD-*beta*-D-Galactosylsphingosine; N-C12:0-NBD-Cerebroside **1 mg**

$C_{42}H_{71}N_5O_{11}$ **Mol. Wt.:** 822 **CAS#:** 474942-98-8
Source: semisynthetic, bovine **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, DMSO, chloroform/methanol, 2:1
Storage: –20°C

1622 **N-Hexanoyl-NBD-glucosylceramide** **100 µg**
1622-001 N-C6:0-NBD-*beta*-D-Glucosylsphingosine; **1 mg**
N-C6:0-NBD-Glucosylceramide, fluorescent

$C_{36}H_{59}N_5O_{11}$ **Mol. Wt.:** 738 **CAS#:** 94885-03-7
Source: semisynthetic, bovine **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** methanol, chloroform/methanol, 5:1
Storage: –20°C

1632 **N-Dodecanoyl-NBD-sulfatide** **100 µg**
1632-001 N-C12:0-NBD-Sulfatide; N-Dodecanoyl-NBD-*lyso*-sulfatide; **1 mg**
N-Dodecanoyl-NBD-sphingosyl-*beta*-D-galactoside-3-sulfate

$C_{42}H_{71}N_5O_{14}S$ **Mol. Wt.:** 901
Source: semisynthetic, bovine **Purity:** 98+% by TLC
Appearance: solid **Solubility:** chloroform/methanol, 2:1
Storage: –20°C

1629 **N-Hexanoyl-NBD-lactosylceramide** **50 µg**
1629-001 N-Hexanoyl-NBD-*beta*-D-lactosylsphingosine; **1 mg**
N-C6:0-NBD-*beta*-D-Lactosylsphingosine; N-C6:0-NBD-Lactosylceramide

$C_{42}H_{69}N_5O_{16}$ **Mol. Wt.:** 900 **CAS#:** 474943-04-9
Source: semisynthetic, bovine buttermilk **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol, 2:1
Storage: –20°C

1630 **N-Dodecanoyl-NBD-lactosylceramide** **50 µg**
1630-001 N-Dodecanoyl-NBD-*beta*-D-lactosylsphingosine; **1 mg**
N-C12:0-NBD-*beta*-D-Lactosylsphingosine; N-C12:0-NBD-Lactosylceramide

$C_{48}H_{81}N_5O_{16}$ **Mol. Wt.:** 984 **CAS#:** 474943-06-1
Source: semisynthetic, bovine buttermilk **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol, 2:1
Storage: –20°C

1631 **N-Dodecanoyl-NBD-ceramide trihexoside** **100 µg**
1631-001 N-C12:0-NBD-CTH; N-C12:0-NBD-Globotriaosylceramide **1 mg**

$C_{54}H_{91}N_5O_{21}$ **Mol. Wt.:** 1145
Source: semisynthetic, porcine RBC **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** DMSO, hot methanol, chloroform/methanol, 2:1
Storage: –20°C

2204 **Lissamine-rhodamine B-dodecanoyl-galactosylceramide** **500 µg**
Sulforhodamine B-C12:0 cerebroside

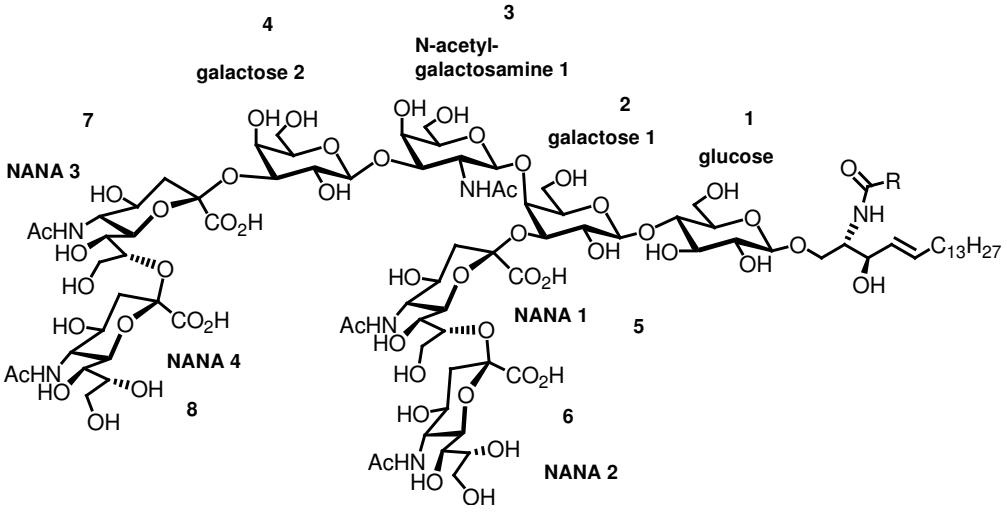
$C_{63}H_{99}N_4O_{14}S_2$ **Mol. Wt.:** 1201
Source: semisynthetic, bovine **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol 8:2, DMSO, DMF
Storage: –20°C
Absorption: 540 nm **Emission:** 565 nm

See Labeled Standards section (page 96) for additional fluorescent labeled products.

Compounds with fluorescent labels other than NBD are available on custom basis. Contact Technical service for more information. 814-355-1030

Gangliosides

The diagram below can be used with the general formulas given in the ganglioside descriptions to construct the individual structures.



1064 **Gangliotetraosylceramide** **1 mg**
Asialo GM_1; Gg4

$C_{62}H_{114}N_2O_{23}$ **Mol. Wt.:** 1256 (stearoyl) **CAS#:** 71012-19-6
Source: semisynthetic, bovine **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol/DI water, 2:1:0.1; forms micellar solution in water
Storage: –20°C
Note: General formula: 1,2,3,4
See Table III (pg. 105) for typical fatty acid content of products prepared from natural sources.

1512 **Gangliotriaosylceramide** **100 µg**
Asialo GM_2; Gg3

$C_{56}H_{104}N_2O_{18}$ **Mol. Wt.:** 1093 (stearoyl) **CAS#:** 35960-33-9
Source: semisynthetic, human **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol/DI water, 2:1:0.1; forms micellar solution in water
Storage: –20°C
Note: General formula: 1,2,3

1061 **Monosialoganglioside GM_1 (NH_4^+ salt)** **5 mg**
1061-50 GM_1 **50 mg**

$C_{73}H_{131}N_3O_{31}\bullet NH_3$ **Mol. Wt.:** 1547 + NH_3 (stearoyl) **CAS#:** 37758-47-7
Source: natural, bovine **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol/DI water, 2:1:0.1; forms micellar solution in water
Storage: –20°C
Note: General formula: 1,2,3,4,5
See Table III (pg. 105) for typical fatty acid content of products prepared from natural sources.

1518 ***lyso*-Monosialoganglioside GM_1 (NH_4^+ salt)** **500 µg**
lyso-GM_1

$C_{55}H_{97}N_3O_{30}\bullet NH_3$ **Mol. Wt.:** 1280 +NH_3 **CAS#:** 171483-40-2
Source: semisynthetic, bovine **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol/DI water, 2:1:0.2
Storage: –20°C

1526 **Fucosylated monosialoganglioside GM_1 (NH_4^+ salt)** **500 µg**
Fucosyl-GM_1

$C_{79}H_{141}N_3O_{35}•NH_3$ **Mol. Wt.:** 1693 + NH_3 (stearoyl) **CAS#:** 71812-11-8
Source: natural, porcine **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol/DI water, 2:1:0.1; forms micellar solution in water
Storage: –20°C
See Table III (pg. 108) for typical fatty acid content of products prepared from natural sources.

2050 **N-*omega*-CD_3-Octadecanoyl monosialoganglioside GM_1 (NH_4^+ salt)** **500 µg**
N-CD_3-Stearoyl GM_1

$C_{73}H_{128}N_3O_{31}D_3•NH_3$ **Mol. Wt.:** 1550 + NH_3
Source: semisynthetic, bovine **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol/DI water, 2:1:0.1; forms micellar solution in water
Storage: –20°C

2053 **N-Hexanoyl-biotin-monosialoganglioside GM_1** **500 µg**
Biotin-C6:0-GM_1

$C_{71}H_{122}N_6O_{33}S$ **Mol. Wt.:** 1620
Source: semisynthetic, bovine **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol/DI water, 2:1:0.1
Storage: –20°C

1502 **Monosialoganglioside GM_2 (NH_4^+ salt)** **500 µg**
GM_2

$C_{67}H_{121}N_3O_{26}•NH_3$ **Mol. Wt.:** 1385+ NH_3 (stearoyl) **CAS#:** 19600-01-2
Source: natural, human Tay-Sachs **Purity:** 98+% by TLC
Appearance: solid **Solubility:** chloroform/methanol/DI water, 2:1:0.1; forms micellar solution in water
Storage: –20°C
Note: General formula: 1,2,3,5
See Table III (pg. 107) for typical fatty acid content of products prepared from natural sources.

2051 **N-*omega*-CD_3-Octadecanoyl monosialoganglioside GM_2 (NH_4^+ salt)** **250 µg**
N-CD_3-Stearoyl GM_2

$C_{67}H_{118}D_3N_3O_{26}•NH_3$ **Mol. Wt.:** 1388 + NH_3
Source: semisynthetic, human Tay-Sachs **Purity:** 98+% by TLC, MS **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol/DI water, 2:1:0.1; forms micellar solution in water
Storage: –20°C

1503 **Monosialoganglioside GM_3 (NH_4^+ salt)** **1 mg**
GM_3

$C_{64}H_{118}N_2O_{21}•NH_3$ **Mol. Wt.:** 1252+ NH_3 (tricosanoyl) **CAS#:** 54827-14-4
Source: natural, bovine buttermilk **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol, 2:1; forms micellar solution in water
Storage: –20°C
Note: General formula: 1,2,5
See Table III (pg. 107) for typical fatty acid content of products prepared from natural sources.

2052 **N-*omega*-CD_3-Octadecanoyl monosialoganglioside GM_3 (NH_4^+ salt)** **250 µg**
N-CD_3-Stearoyl GM_3

$C_{59}H_{105}D_3N_2O_{21}•NH_3$ **Mol. Wt.:** 1185 + NH_3
Source: semisynthetic, bovine buttermilk **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol/DI water, 2:1:0.1; forms micellar solution in water
Storage: –20°C

1535 **Monosialoganglioside GM_4 (NH_4^+ salt)** **500 µg**

GM_4

$C_{57}H_{106}N_2O_{17}•NH_3$ **Mol. Wt.:** 1091+NH_3 (2-hydroxydocosanoyl) **CAS#:** 66456-69-7
Source: natural, egg, chicken **Purity:** 98+% by TLC
Appearance: solid **Solubility:** chloroform/methanol, 2:1; forms micellar solution in water
Storage: –20°C
Note: General formula: 2,5
See Table III (pg. 108) for typical fatty acid content of products prepared from natural sources.

1062 **Disialoganglioside GD_{1a} (NH_4^+ salt)** **5 mg**

GD_{1a}

$C_{84}H_{148}N_4O_{39}•2NH_3$ **Mol. Wt.:** 1838 + $2NH_3$ (stearoyl) **CAS#:** 12707-58-3
Source: natural, bovine **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol/DI water, 2:1:0.1; forms micellar solution in water
Storage: –20°C
Note: General formula: 1,2,3,4,5,7
See Table III (pg. 105) for typical fatty acid content of products prepared from natural sources.

1501 **Disialoganglioside GD_{1b} (NH_4^+ salt)** **1 mg**

GD_{1b}

$C_{84}H_{148}N_4O_{39}•2NH_3$ **Mol. Wt.:** 1838 + $2NH_3$ (stearoyl) **CAS#:** 19553-76-5
Source: natural, bovine **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol/DI water, 2:1:0.1; forms micellar solution in water
Storage: –20°C
Note: General formula: 1,2,3,4,5,6
See Table III (pg. 107) for typical fatty acid content of products prepared from natural sources.

1527 **Disialoganglioside GD_2 (NH_4^+ salt)** **500 µg**

GD_2

$C_{78}H_{138}N_4O_{34}•2NH_3$ **Mol. Wt.:** 1676 + $2NH_3$ (stearoyl) **CAS#:** 65988-71-8
Source: semisynthetic, rabbit **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol/DI water, 2:1:0.1; forms micellar solution in water
Storage: –20°C
Note: General formula: 1,2,3,5,6
See Table III (pg. 108) for typical fatty acid content of products prepared from natural sources.

1504 **Disialoganglioside GD_3 (NH_4^+ salt)** **5 mg**
1504-25 GD_3 **25 mg**

$C_{75}H_{135}N_3O_{29}•2NH_3$ **Mol. Wt.:** 1543+$2NH_3$ (tricosanoyl) **CAS#:** 62010-37-1
Source: natural, bovine buttermilk **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol, 2:1; forms micellar solution in water
Storage: –20°C
Note: General formula: 1,2,5,6
See Table III (pg. 107) for typical fatty acid content of products prepared from natural sources.

2054 **N-*omega*-CD_3-Octadecanoyl disialoganglioside GD_3** **500 µg**
NEW N-CD_3-Stearoyl GD_3

$C_{70}H_{122}D_3N_3O_{29}$ **Mol. Wt.:** 1476
Source: semisynthetic bovine buttermilk **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol, 2:1, water
Storage: –20°C

2055 **N-Hexanoyl-biotin-disialoganglioside GD_3** **500 µg**
NEW Biotin-C6:0-GD_3

$C_{68}H_{116}N_6O_{31}S$ **Mol. Wt.:** 1546
Source: semisynthetic bovine buttermilk **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol/DI water, 2:1:0.1
Storage: –20°C

1063 **Trisialoganglioside GT_{1b} (NH_4^+ salt)** **5 mg**
GT_{1b}

$C_{95}H_{165}N_5O_{47}•3NH_3$ **Mol. Wt.:** 2129 + $3NH_3$ (stearoyl) **CAS#:** 59247-13-1
Source: natural, bovine **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol/DI water, 2:1:0.1; forms micellar solution in water
Storage: –20°C
Note: General Formula: 1,2,3,4,5,6,7
See Table III (pg. 105) for typical fatty acid content of products prepared from natural sources.

1516 **Tetrasialoganglioside GQ_{1b} (NH_4^+ salt)** **100 µg**
GQ_{1b}

$C_{106}H_{182}N_6O_{55}•4NH_3$ **Mol. Wt.:** 2421+$4NH_3$ (stearoyl) **CAS#:** 68652-37-9
Source: natural, bovine **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol/DI water, 2:1:0.1; forms micellar solution in water
Storage: –20°C
Note: General formula: 1,2,3,4,5,6,7,8
See Table III (pg. 108) for typical fatty acid content of products prepared from natural sources.

1065 **Mixed Gangliosides, purified (NH_4^+ salt), bovine** **25 mg**
Mixed Gangliosides

Source: natural, bovine **Purity:** 98+% by TLC
Appearance: solid **Solubility:** chloroform/methanol/DI water, 2:1:0.1; forms micellar solution in water
Storage: –20°C Approximately 98% GM_1, GD_{1a}, GD_{1b} and GT_{1b}, remaining 2% other gangliosides
See Table III (pg. 105) for typical fatty acid content of products prepared from natural sources.

1525 **Mixed Gangliosides, purified (NH_4^+ salt), porcine** **25 mg**

Source: natural, porcine **Purity:** 98+% by TLC
Appearance: solid **Solubility:** chloroform/methanol/DI water, 2:1:0.1; forms micellar solution in water
Storage: –20°C Approximately 98% GM_1, GD_{1a}, GD_{1b} and GT_{1b}, remaining 2% other gangliosides
See Table III (pg. 108) for typical fatty acid content of products prepared from natural sources.

Glycosphingolipid Reference Mixtures for TLC

These mixtures are qualitative standards prepared from our purified glycosphingolipids.

1505 **Neutral Glycosphingolipid Mixture** **1 mg/ml, 1 ml**
Qualitative mixture

Source: natural, bovine and porcine
Appearance: liquid
Storage: –20°C **Solvent:** chloroform/methanol, 2:1
Contains: cerebrosides, lactosylceramides, ceramide trihexosides, globosides.

1508 **Monosialoganglioside Mixture** **0.5 mg/ml, 1 ml**

Source: natural, bovine, human
Appearance: liquid
Storage: –20°C **Solvent:** chloroform/methanol/DI water, 2:1:0.1
Contains: GM_3, GM_2, GM_1

1509 **Disialoganglioside Mixture** **0.5 mg/ml, 1 ml**

Source: natural, bovine
Appearance: liquid
Storage: –20°C **Solvent:** chloroform/methanol/DI water, 2:1:0.1
Contains: GD_3, GD_{1a}, GD_{1b}

1510 **Lactosylceramide and Sialosyl Derivatives Mixture** **0.5 mg/ml, 1 ml**

Source: natural, bovine buttermilk
Appearance: liquid
Storage: –20°C **Solvent:** chloroform/methanol/DI water, 2:1:0.1
Contains: LC, GM_3, GD_3

1511 **Gangliotetraosylceramide and Sialosyl Derivatives Mixture** **0.5 mg/ml, 1 ml**

Source: natural, bovine
Appearance: liquid
Storage: –20°C **Solvent:** chloroform/methanol/DI water, 2:1:0.1
Contains: asialo GM_1, GM_1, GD_{1a}, GD_{1b}, GT_{1b}

Antibodies Directed Against Glycolipids

These monoclonal and polyclonal antibodies are directed against the carbohydrate chains of Matreya's glycolipids. The same carbohydrate moieties are found on many glycoproteins. The antibodies are for use in ELISA or TLC immunoblotting applications (9). All antibodies are quality tested by actual performance in ELISA and TLC immunoblotting. The antibodies contain no preservatives and are shipped on dry ice.
See Literature References on page 109.

1977 **Anti-ganglioside GD_3** **50 µl**
Monoclonal antibody to GD_3, isotype IgG/IgM

Source: natural, mouse hybridoma R-24 cell line
Appearance: liquid **Solubility:** DI water
Storage: –20°C **Dry Ice Charge Applies**
Suitable for TLC immunoblotting, ELISA

1950 **Anti-ganglioside asialo GM_1** **100 µl**
Polyclonal antibody to asialo GM_1, isotype IgG/IgM

Source: natural, rabbit
Appearance: liquid **Solubility:** DI water
Storage: –20°C **Dry Ice Charge Applies**
Suitable for ELISA, TLC-immunoblotting. Slight cross reaction to GM_1

1951 **Anti-ganglioside asialo GM_2** **50 µl**
Polyclonal antibody to asialo GM_2, isotype IgG/IgM

Source: natural, rabbit
Appearance: liquid **Solubility:** DI water
Storage: –20°C **Dry Ice Charge Applies**
Suitable for ELISA, TLC-immunoblotting

1954 **Anti-ganglioside GM_1** **100 µl**
Polyclonal antibody to GM_1, isotype IgG/IgM

Source: natural, rabbit
Appearance: liquid **Solubility:** DI water
Storage: –20°C **Dry Ice Charge Applies**
Suitable for ELISA, TLC-immunoblotting. Slight cross reaction to asialo-GM_1

1964 **Anti-ganglioside GD_{1b}** **50 µl**
Polyclonal antibody to GD_{1b}, isotype IgG/IgM

Source: natural, rabbit
Appearance: liquid **Solubility:** DI water
Storage: –20°C **Dry Ice Charge Applies**
Suitable for ELISA, TLC-immunoblotting

1960 **Anti-globoside GL-4** **50 µl**
Polyclonal antibody to GL-4, isotype IgG/IgM

Source: natural, rabbit
Appearance: liquid **Solubility:** DI water
Storage: –20°C **Dry Ice Charge Applies**
Suitable for ELISA, TLC-immunoblotting

Enzyme Inhibitors

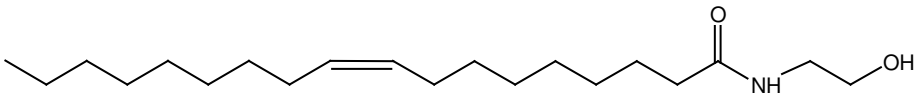
Ceramide: UDPglucose Transferase. PDMP (D,L-*threo*-1-phenyl-2-decanoylamino-3-morpholino-1-propanol-HCl) closely resembles the natural sphingolipid substrate of brain glucosyl transferase and is a very potent and competitive inhibitor of the enzyme (26). It has been shown to block outgrowth of neurites in cultured retina and to block glucolipid synthesis in cultured 3T3 cells (27). N.S. Radin and co-workers have shown (28) that PPMP has activity equivalent to that of PDMP when cell homogenates and brain and liver microsomes are used, but it is about 20 times more potent when used with intact cells. In another paper (29), Radin's group has shown that PDMP has substantial activity against Ehrlich ascites tumors in mice. Recent publications from the laboratory of Myles Cabot (30, 31) show that PPMP can reverse multi-drug resistance in cancer cells by causing a build-up of ceramide and preventing the synthesis of glycosylated ceramides. **See Literature References on page 109.**

Matreya also offers the resolved D- and L-*threo*-isomers of PDMP and PPMP.

Protein Kinase C Inhibitor. Sphingosine is a potent and reversible inhibitor of protein kinase C (32); it also has been shown at low concentrations to stimulate DNA synthesis and act synergistically with known growth factors (33). Note that Safingol (our L-*threo*-Dihydrosphingosine) has also been shown to partially reverse multi-drug resistance in cancer cells (31) *via* inhibition of protein kinase C.

Dihydroceramide desaturase Inhibitor. Cyclopropenylceramide is the first known inhibitor of this enzyme and may allow significant studies on the role of ceramide in apoptosis. Matreya is the only source for this inhibitor. (34)

Ceramidase Inhibitors. N-Oleoylethanolamine has been shown to be an efficacious inhibitor of the ceramidase found in human kidney and cerebellum (35). It is specifically an inhibitor of acid ceramidase (36) with an IC_{50} of ca. 500 µM. N-Hexadecanoylethanolamine can be used as an inactive control. D-MAPP is a potent (IC_{50} approximately 5 µM) inhibitor of alkaline ceramidase. Its enantiomer L-MAPP is inactive as an inhibitor and acts as a substrate for this enzyme (36, 37). **See Literature References on page 109.**

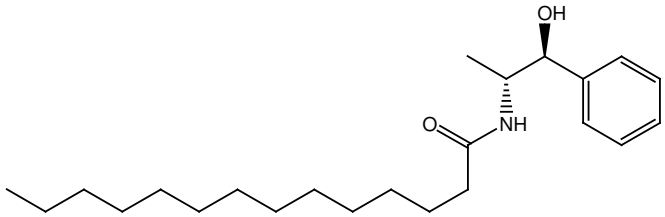


1751 **N-Oleoylethanolamine** **100 mg**
NOE

$C_{20}H_{39}NO_2$ **Mol. Wt.:** 326 **CAS#:** 111-58-0
Source: synthetic **Purity:** 98+% by TLC, GC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, ethanol, methanol, ethyl ether, DMSO
Storage: –20°C **Melting Point (°C):** 63-66
Activity: acid ceramidase inhibitor

1807 **L-*threo*-Dihydrosphingosine (Safingol)** **5 mg**
1807-025 L-*threo*-Sphinganine, C18 chain **25 mg**

$C_{18}H_{39}NO_2$ **Mol. Wt.:** 301 **CAS#:** 15639-50-6
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: solid **Solubility:** chloroform, ethanol, methanol
Storage: –20°C
Activity: Protein Kinase C (PKC) and Sphingosine Kinase inhibitor

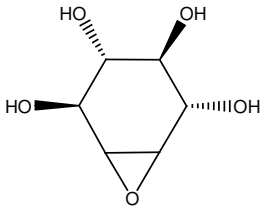


1859 **D-MAPP** **100 mg**
D-*erythro*-2-Tetradecanoylamino-1-phenyl-1-propanol

$C_{23}H_{39}NO_2$ **Mol. Wt.:** 361 **CAS#:** 143492-39-1
Source: synthetic **Purity:** 98+% by TLC
Appearance: solid **Solubility:** ethanol
Storage: –20°C
Activity: alkaline ceramidase inhibitor

1860 **L-MAPP** **100 mg**
L-*erythro*-2-Tetradecanoylamino-1-phenyl-1-propanol

$C_{23}H_{39}NO_2$ **Mol. Wt.:** 361 **CAS#:** 143492-38-0
Source: synthetic **Purity:** 98+% by TLC
Appearance: solid **Solubility:** ethanol
Storage: –20°C
Activity: inactive as alkaline ceramidase inhibitor



1889 **Conduritol B Epoxide** **25 mg**
D,L-1,2-Anhydro-myo-inositol

$C_6H_{10}O_5$ **Mol. Wt.:** 162 **CAS#:** 6090-95-5
Source: synthetic **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** DI water, DMSO, methanol (slightly)
Storage: –20°C **Melting Point (°C):** 164-166
Activity: Inhibits α-and β-glucosidase activity; specific inhibitor of glucocerebrosidase in cultured cells.

PDMP's can be solubilized in 5% Tween-80 in saline. S. Chatterjee et al. PLoS One. 2013; 8(5): e63726

1719 **D,L-*threo*-PDMP** **100 mg**

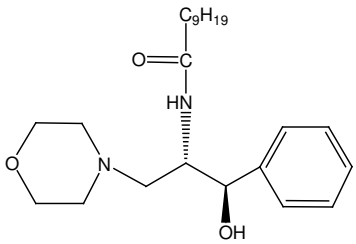
D,L-*threo*-1-Phenyl-2-decanoylamino-3-morpholino-1-propanol•HCl

$C_{23}H_{38}N_2O_3$•HCl **Mol. Wt.:** 427 **CAS#:** 80938-69-8
Source: synthetic **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** ethanol, methanol, chloroform, DMSO
Storage: –20°C
Activity: glucosylceramide synthase inhibitor

1720 **D,L-*threo*-PPMP** **100 mg**

D,L-*threo*-l-Phenyl-2-hexadecanoylamino-3-morpholino-1-propanol•HCl

$C_{29}H_{50}N_2O_3$•HCl **Mol. Wt.:** 511 **CAS#:** 149022-18-4
Source: synthetic **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** alcohols, chloroform
Storage: –20°C
Activity: glucosylceramide synthase inhibitor



1749 **L-*threo*-PDMP** **10 mg**

L-*threo*-1-Phenyl-2-decanoylamino-3-morpholino-1-propanol•HCl

$C_{23}H_{38}N_2O_3$•HCl **Mol. Wt.:** 427 **CAS#:** 109836-81-9
Source: synthetic **Purity:** 98+% by TLC
Appearance: solid **Solubility:** ethanol, methanol
Storage: –20°C

1753 **D,L-*erythro*-PPMP** **100 mg**

D,L-*erythro*-1-Phenyl-2-hexadecanoylamino-3-morpholino-1-propanol•HCl

$C_{29}H_{50}N_2O_3$•HCl **Mol. Wt.:** 511
Source: synthetic **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, ethanol, methanol, DSMO
Storage: –20°C

1755 **D,L-*erythro*-PDMP** **100 mg**

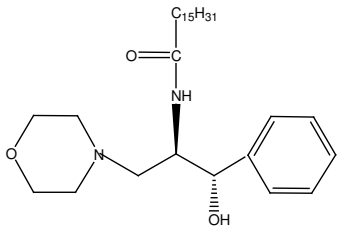
D,L-*erythro*-1-Phenyl-2-decanoylamino-3-morpholino-1-propanol•HCl

$C_{23}H_{38}N_2O_3$•HCl **Mol. Wt.:** 427 **CAS#:** 109760-77-2
Source: synthetic **Purity:** 98+% by TLC, HPLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, ethanol, methanol, DSMO
Storage: –20°C

1756 **D-*threo*-PDMP** **10 mg**

D-*threo*-1-Phenyl-2-decanoylamino-3-morpholino-1-propanol•HCl

$C_{23}H_{38}N_2O_3$•HCl **Mol. Wt.:** 427 **CAS#:** 109836-82-0
Source: synthetic **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** ethanol, methanol
Storage: –20°C
Activity: glucosylceramide synthase inhibitor



1865 **D-*threo*-PPMP** **10 mg**

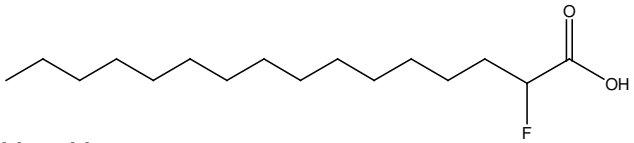
D-*threo*-1-Phenyl-2-hexadecanoylamino-3-morpholino-1-propanol•HCl

$C_{29}H_{50}N_2O_3$•HCl **Mol. Wt.:** 511
Source: synthetic **Purity:** 98+% by TLC
Appearance: solid **Solubility:** ethanol, methanol
Storage: –20°C
Activity: glucosylceramide synthase inhibitor

1868 **L-*threo*-PPMP** **10 mg**

L-*threo*-1-Phenyl-2-hexadecanoylamino-3-morpholino-1-propanol•HCl

$C_{29}H_{50}N_2O_3$•HCl **Mol. Wt.:** 511 **CAS#:** 207278-87-3
Source: synthetic **Purity:** 98+% by TLC
Appearance: solid **Solubility:** ethanol, methanol
Storage: –20°C



1717 **2-Fluoropalmitic acid** **25 mg**

$C_{16}H_{31}FO_2$ **Mol. Wt.:** 274 **CAS#:** 89270-22-4
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: solid **Solubility:** chloroform, ethanol, methanol
Storage: –20°C **Melting Point (°C):** 83-85
Activity: Acyl-CoA synthase inhibitor

1718 **Methyl 2-fluoropalmitate** **10 mg**

$C_{17}H_{33}FO_2$ **Mol. Wt.:** 288
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: solid **Solubility:** chloroform, ethanol, methanol
Storage: –20°C **Melting Point (°C):** 36-38
Activity: inactive ester of 2-fluoropalmitic acid

1858 **2-Acetyl-4-(1R, 2S, 3R, 4-tetrahydroxybutyl)-imidazole** **1 mg**

THI

$C_9H_{14}N_2O_5$ **Mol. Wt.:** 230 **CAS#:** 94944-70-4
Source: synthetic **Purity:** 99% by HPLC, MS, NMR
Appearance: solid **Solubility:** DI water
Storage: –20°C
Activity: Sphingosine-1-phosphate lyase inhibitor

1945 **N-(1-Adamantaneacetyl)-glucosylceramide** **5 mg**

N-(1-Adamantaneacetyl)-glucocerebroside

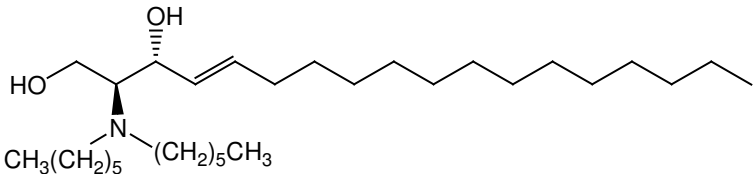
$C_{36}H_{61}NO_8$ **Mol. Wt.:** 636
Source: semisynthetic, plant **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, methanol, chloroform/methanol, 9:1
Storage: –20°C
Activity: inhibitor of glucocerebrosidase and lactosylceramide synthase

1946 **N-(1-Adamantaneacetyl)-galactosylceramide** **5 mg**
N-(1-Adamantaneacetyl)-galactocerebroside

$C_{36}H_{63}NO_8$ **Mol. Wt.:** 638
Source: semisynthetic, bovine **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, methanol, chloroform/methanol, 9:1
Storage: –20°C
Activity: inhibitor of glucosylceramide, sulfatide, and globotriaosylceramide (Gb_3) synthase

1320 **N,N-Dimethyl-D-*erythro*-sphingosine** **5 mg/ml, 1 ml**

$C_{20}H_{41}NO_2$ **Mol. Wt.:** 328 **CAS#:** 119567-63-4
Source: synthetic **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: liquid **Solubility:** chloroform, ethanol, isopropanol, methanol
Storage: –20°C **Solvent:** isopropanol
Activity: Inhibitor of phosphokinase C



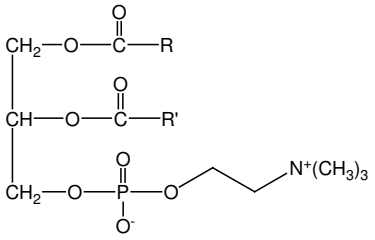
1896 **N,N-Dihexyl-D-*erythro*-sphingosine** **5 mg/ml, 1 ml**
Sphingosine with tertiary amine group

$C_{30}H_{61}NO_2$ **Mol. Wt.:** 468
Source: synthetic **Purity:** 95% by TLC
Appearance: liquid **Solubility:** chloroform, ethanol, methanol
Storage: –20°C **Solvent:** ethanol

Glycerolipids

Glycerophospholipids

Natural Phospholipids

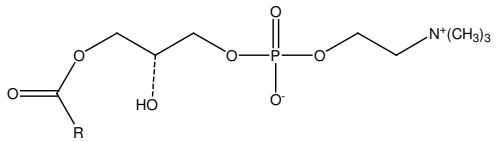


1044 **Lecithin, egg** **50 mg/ml, 1 ml**
Phosphatidylcholine; PC

$C_{44}H_{84}NO_8P$ **Mol. Wt.:** 787 (oleoyl) **CAS#:** 8002-43-5
Source: natural, chicken, egg **Purity:** 98+% by TLC
Appearance: liquid **Solubility:** chloroform, ethyl ether, ethanol
Storage: –20°C **Solvent:** chloroform
See Table III (pg. 104) for typical fatty acid content of products prepared from natural sources.

1070 **Lecithin, bovine** **50 mg/ml, 1 ml**
Phosphatidylcholine; PC

$C_{44}H_{84}NO_8P$ **Mol. Wt.:** 787 (oleoyl) **CAS#:** 8002-43-5
Source: natural, bovine **Purity:** 98+% by TLC
Appearance: liquid **Solubility:** chloroform, ethyl ether
Storage: –20°C **Solvent:** chloroform
See Table III (pg. 106) for typical fatty acid content of products prepared from natural sources.



1046 ***lyso*-Lecithin, egg** **50 mg**
lyso-Phosphatidylcholine

$C_{24}H_{50}NO_7P$ **Mol. Wt.:** 496 (palmitoyl) **CAS#:** 9008-30-4
Source: semisynthetic, chicken, egg **Purity:** 98+% by TLC
Appearance: solid **Solubility:** chloroform/methanol, 2:1
Storage: –20°C
See Table III (pg. 104) for typical fatty acid content of products prepared from natural sources.

1047 **Phosphatidylserine, bovine** **50 mg/ml, 1 ml**
PS

$C_{42}H_{78}NO_{10}P$ **Mol. Wt.:** 788 (oleoyl) **CAS#:** 51446-62-9
Source: natural, bovine **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: liquid **Solubility:** chloroform, toluene
Storage: –20°C **Solvent:** chloroform
See Table III (pg. 104 for typical fatty acid content of products prepared from natural sources.

1048 **Phosphatidylinositol (Na^+ salt), plant, wheat germ** **10 mg/ml, 1 ml**
PI

$C_{45}H_{78}O_{13}P•Na$ **Mol. Wt.:** 858 + Na (linoleoyl) **CAS#:** 383907-36-6
Source: natural, plant **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: liquid **Solubility:** chloroform, ethyl ether
Storage: –20°C **Solvent:** chloroform
See Table III (pg. 104) for typical fatty acid content of products prepared from natural sources.

1336 **Phosphatidylinositol (Na^+ salt), plant, soy** **50 mg/ml, 1ml**
PI

$C_{46}H_{80}O_{13}P•Na$ **Mol. Wt.:** 858 + Na (linoleoyl) **CAS#:** 383907-36-6
Source: natural, plant, soy **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: liquid **Solubility:** chloroform, ethyl ether
Storage: –20°C **Solvent:** chloroform
See Table III (pg. 107) for typical fatty acid content of products prepared from natural sources.

1053 **Phosphatidic acid (NH_4^+ salt), egg** **50 mg**
PA

$C_{39}H_{72}O_8P•NH_4^+$ **Mol. Wt.:** 718 (oleoyl, NH_4^+)
Source: semisynthetic, chicken, egg **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, ethyl ether
Storage: –20°C
See Table III (pg. 104) for typical fatty acid content of products prepared from natural sources.

1045 **Phosphatidylethanolamine, egg** **50 mg/ml, 1 ml**
PE

$C_{41}H_{78}NO_8P$ **Mol. Wt.:** 744 (oleoyl) **CAS#:** 39382-08-6
Source: natural, chicken, egg **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: liquid **Solubility:** chloroform
Storage: –20°C **Solvent:** chloroform
See Table III (pg. 104) for typical fatty acid content of products prepared from natural sources.

1069 **Phosphatidylethanolamine, bovine** **50 mg/ml, 1 ml**
PE

$C_{41}H_{78}NO_8P$ **Mol. Wt.:** 744 (oleoyl) **CAS#:** 90989-93-8
Source: natural, bovine **Purity:** 98+% by TLC
Appearance: liquid **Solubility:** chloroform
Storage: –20°C **Solvent:** chloroform

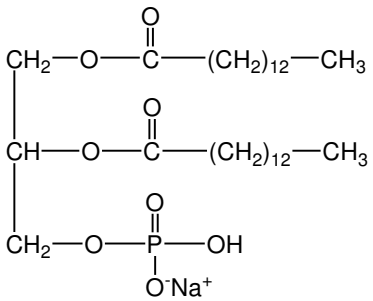
1301 **Phosphatidylethanolamine, plant** **50 mg/ml, 1 ml**
PE

$C_{41}H_{74}NO_8P$ **Mol. Wt.:** 740 (linoleoyl) **CAS#:** 90989-93-8
Source: natural, plant **Purity:** 98+% by TLC
Appearance: liquid **Solubility:** chloroform
Storage: –20°C **Solvent:** chloroform
See Table III (pg. 106) for typical fatty acid content of products prepared from natural sources.

Synthetic Phospholipids

These phospholipids have 98+% chemical purity except where stated and 99% fatty acid chain purity. Store at -20° C.

Phosphatidic Acid Derivatives



1428 **1,2-Dimyristoyl-sn-glycero-3-phosphatidic acid (Na^+ salt)** **100 mg**
DMPA

$C_{31}H_{60}O_8P•Na$ **Mol. Wt.:** 615 **CAS#:** 80724-31-8
Source: synthetic **Purity:** 98+% by TLC
Appearance: solid **Solubility:** chloroform/methanol/acetic acid, 4:1:0.1
Storage: –20°C

1429 **1,2-Dipalmitoyl-sn-glycero-3-phosphatidic acid (Na^+ salt)** **100 mg**
DPPA

$C_{35}H_{68}O_8P•Na$ **Mol. Wt.:** 671 **CAS#:** 71065-87-7
Source: synthetic **Purity:** 98+% by TLC
Appearance: solid **Solubility:** chloroform/methanol/acetic acid, 4:1:0.1
Storage: –20°C

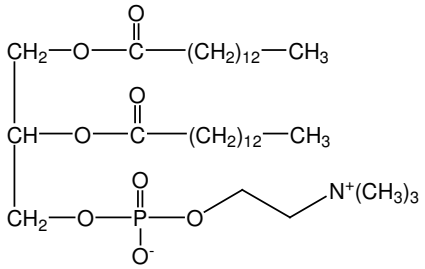
1430 **1,2-Distearoyl-sn-glycero-3-phosphatidic acid (Na^+ salt)** **100 mg**
DSPA

$C_{39}H_{76}O_8P•Na$ **Mol. Wt.:** 727 **CAS#:** 108321-18-2
Source: synthetic **Purity:** 98+% by TLC
Appearance: solid **Solubility:** chloroform/methanol/acetic acid, 4:1:0.1
Storage: –20°C

Phosphatidylcholines

1442 **1,2-Dilauroyl-sn-glycero-3-phosphorylcholine** **100 mg**
DLPC

$C_{32}H_{64}NO_8P$ **Mol. Wt.:** 622 **CAS#:** 18194-25-7
Source: synthetic **Purity:** 98+% by TLC
Appearance: solid **Solubility:** methylene chloride, methanol
Storage: –20°C



1425 **1,2-Dimyristoyl-sn-glycero-3-phosphorylcholine** **100 mg**
DMPC

$C_{36}H_{72}NO_8P$ **Mol. Wt.:** 678 **CAS#:** 18194-24-6
Source: synthetic **Purity:** 98+% by TLC
Appearance: solid **Solubility:** methylene chloride, methanol
Storage: –20°C **Melting Point:** 130-139°C

1426 **1,2-Dipalmitoyl-sn-glycero-3-phosphorylcholine** **100 mg**
DPPC

$C_{40}H_{80}NO_8P$ **Mol. Wt.:** 734 **CAS#:** 63-89-8
Source: synthetic **Purity:** 98+% by TLC
Appearance: solid **Solubility:** methylene chloride, methanol
Storage: –20°C

1400 **1,2-Diheptadecanoyl-sn-glycero-3-phosphorylcholine** **50 mg**
DHDPC

$C_{42}H_{84}NO_8P$ **Mol. Wt.:** 762 **CAS#:** 70897-27-7
Source: synthetic **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** methylene chloride, methanol
Storage: –20°C

1427 **1,2-Distearoyl-sn-glycero-3-phosphorylcholine** **100 mg**
DSPC

$C_{44}H_{88}NO_8P$ **Mol. Wt.:** 790 **CAS#:** 816-94-4
Source: synthetic **Purity:** 98+% by TLC
Appearance: solid **Solubility:** methylene chloride, methanol
Storage: –20°C

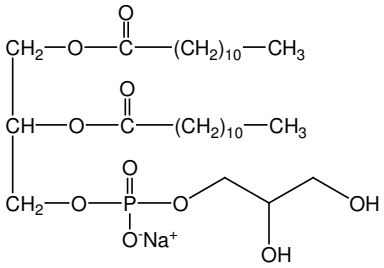
1437 **1-Palmitoyl-2-oleoyl-sn-glycero-3-phosphorylcholine** **100 mg**
POPC

$C_{42}H_{82}NO_8P$ **Mol. Wt.:** 760 **CAS#:** 26853-31-6
Source: synthetic **Purity:** 98+% by TLC
Appearance: solid **Solubility:** methylene chloride, methanol
Storage: –20°C

1445 **1-Palmitoyl-sn-glycero-3-phosphorylcholine** **100 mg**
lyso-PPC

$C_{24}H_{50}NO_7P$ **Mol. Wt.:** 496 **CAS#:** 17364-16-8
Source: synthetic **Purity:** 98+% by TLC
Appearance: solid **Solubility:** methylene chloride, methanol
Storage: –20°C

Phosphatidylglycerols



1443 **1,2-Dilauroyl-sn-glycero-3-phosphorylglycerol (Na^+ salt)** **100 mg**
DLPG

$C_{30}H_{58}O_{10}P•Na$ **Mol. Wt.:** 632 **CAS#:** 73548-69-3
Source: synthetic **Purity:** 98+% by TLC
Appearance: solid **Solubility:** chloroform/methanol, 5:1
Storage: –20°C

1431 **1,2-Dimyristoyl-sn-glycero-3-phosphorylglycerol (Na^+ salt)** **100 mg**
DMPG

$C_{34}H_{66}O_{10}P•Na$ **Mol. Wt.:** 689 **CAS#:** 200880-40-6
Source: synthetic **Purity:** 98+% by TLC
Appearance: solid **Solubility:** chloroform/methanol, 5:1
Storage: –20°C **Melting Point:** 120-129°C

1432 **1,2-Dipalmitoyl-sn-glycero-3-phosphorylglycerol (Na^+ salt)** **100 mg**
DPPG

$C_{38}H_{74}O_{10}P•Na$ **Mol. Wt.:** 745 **CAS#:** 200880-41-7
Source: synthetic **Purity:** 98+% by TLC
Appearance: solid **Solubility:** chloroform/methanol, 5:1
Storage: –20°C **Melting Point:** 122-127°C

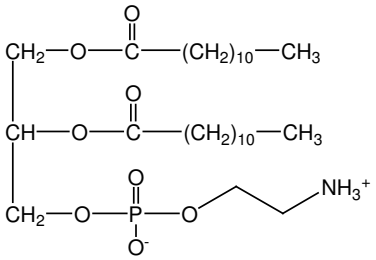
1433 **1,2-Distearoyl-sn-glycero-3-phosphorylglycerol (Na^+ salt)** **100 mg**
DSPG

$C_{42}H_{82}O_{10}P•Na$ **Mol. Wt.:** 801 **CAS#:** 4537-78-4
Source: synthetic **Purity:** 98+% by TLC
Appearance: solid **Solubility:** chloroform/methanol, 5:1
Storage: –20°C

1438 **1-Palmitoyl-2-oleoyl-sn-glycero-3-phosphorylglycerol (Na^+ salt)** **100 mg**
POPG

$C_{40}H_{76}O_{10}P•Na$ **Mol. Wt.:** 771 **CAS#:** 202070-86-8
Source: synthetic **Purity:** 98+% by TLC
Appearance: solid **Solubility:** chloroform/methanol, 5:1
Storage: –20°C

Phosphatidylethanolamines



1444 **1,2-Dilauroyl-sn-glycero-3-phosphorylethanolamine** **100 mg**
DLPE

$C_{29}H_{58}NO_8P$ **Mol. Wt.:** 580 **CAS#:** 42436-56-6
Source: synthetic **Purity:** 98+% by TLC
Appearance: solid **Solubility:** chloroform + methanol mixture
Storage: –20°C

1434 **1,2-Dimyristoyl-sn-glycero-3-phosphorylethanolamine** **100 mg**
DMPE

$C_{33}H_{66}NO_8P$ **Mol. Wt.:** 636 **CAS#:** 998-07-2
Source: synthetic **Purity:** 98+% by TLC
Appearance: solid **Solubility:** chloroform/acetic acid, 95:5;
Storage: –20°C chloroform/methanol/DI water/acetic acid, 100:30:10:2.5

1435 **1,2-Dipalmitoyl-sn-glycero-3-phosphorylethanolamine** **100 mg**
DPPE

$C_{37}H_{74}NO_8P$ **Mol. Wt.:** 692 **CAS#:** 923-61-5
Source: synthetic **Purity:** 98+% by TLC
Appearance: solid **Solubility:** chloroform/acetic acid, 95:5;
Storage: –20°C chloroform/methanol/DI water/acetic acid, 100:30:10:2.5

1436 **1,2-Distearoyl-sn-glycero-3-phosphorylethanolamine** **100 mg**
DSPE

$C_{41}H_{82}NO_8P$ **Mol. Wt.:** 748 **CAS#:** 1069-79-0
Source: synthetic **Purity:** 98+% by TLC
Appearance: solid **Solubility:** chloroform/acetic acid, 95:5;
Storage: –20°C chloroform/methanol/DI water/acetic acid, 100:30:10:2.5

1439 **1,2-Distearoyl-phosphatidylethanolamine-methyl-polyethyleneglycol conjugate-2000 (Na^+ salt)** **100 mg**
DSPE-MPEG-2000

$C_{43}H_{83}NO_{10}P(C_2H_4O)_n \bullet Na$ **Mol. Wt.:** 2807 **CAS#:** 147867-65-0
Source: synthetic **Purity:** 98+% by TLC
Appearance: solid **Solubility:** chloroform
Storage: –20°C
Note: n ≈ 45

Bacterial Tetraethers

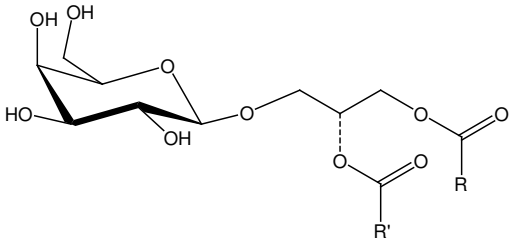
1303 **Main phospholipid (MPL) of *Thermoplasma acidophilum*, (>95% pure)** **5 mg**
beta-L-Gulopyranosyl-caldarchaetidyl-glycerol

$C_{95}H_{188}O_{16}P$ **Mol. Wt.:** 1618
Source: natural, Archaebacteria **Purity:** >95% by TLC, HPLC
Appearance: solid **Solubility:** chloroform/methanol, 2:1; hexane/2-propanol/DI water, 30:40:5
Storage: 4-8°C

1303-2 **Main phospholipid (MPL) of *Thermoplasma acidophilum*, (>50% pure)** **50 mg**
beta-L-Gulopyranosyl-caldarchaetidyl-glycerol

$C_{95}H_{188}O_{16}P$ **Mol. Wt.:** 1618
Source: natural, Archaebacteria **Purity:** >50% by TLC
Appearance: solid **Solubility:** chloroform/methanol, 2:1; hexane/2-propanol/DI water, 30:40:5
Storage: 4-8°C highly hygroscopic

Glycosyl Glycerides



1058 **Monogalactosyldiglyceride (hydrogenated), plant** **10 mg**
MGDG (hydrogenated)

$C_{45}H_{86}O_{10}$ **Mol. Wt.:** 787 (stearoyl) **CAS#:** 41670-62-6
Source: natural, plant **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol/DI water, 4:1:0.1
Storage: –20°C
See Table III (pg. 105) for typical fatty acid content of products prepared from natural sources.

1059 **Digalactosyldiglyceride (hydrogenated), plant** **5 mg**
DGDG (hydrogenated)

$C_{51}H_{96}O_{15}$ **Mol. Wt.:** 949 (distearoyl) **CAS#:** 92457-02-8
Source: natural, plant **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol/DI water, 4:1:0.1
Storage: −20°C
See Table III (pg. 105) for typical fatty acid content of products prepared from natural sources.

Fatty Acids

Simple Fatty Acids

Saturated Fatty Acids and Methyl Esters

These products are 99% pure by GC. They are stable at room temperature and are supplied neat.

1200 **Methyl hexanoate** **1 g**
Methyl caproate; C6:0 Methyl ester

$C_7H_{14}O_2$ **Mol. Wt.:** 130 **CAS#:** 106-70-7
Source: natural, plant **Purity:** 99% by TLC, GC
Appearance: liquid **Solubility:** chloroform, ethanol, ethyl ether
Storage: room temperature

1196 **Heptanoic acid** **1 g**
C7:0 Fatty acid

$C_7H_{14}O_2$ **Mol. Wt.:** 130 **CAS#:** 111-14-8
Source: natural, plant **Purity:** 99% by TLC, GC
Appearance: liquid **Solubility:** chloroform, ethanol, ethyl ether
Storage: room temperature

1197 **Methyl heptanoate** **1 g**
C7:0 Methyl ester

$C_8H_{16}O_2$ **Mol. Wt.:** 144 **CAS#:** 106-73-0
Source: natural, plant **Purity:** 99% by TLC, GC
Appearance: liquid **Solubility:** chloroform, ethanol, ethyl ether
Storage: room temperature

1198 **Octanoic acid** **1 g**
Caprylic acid; C8:0 Fatty acid

$C_8H_{16}O_2$ **Mol. Wt.:** 144 **CAS#:** 124-07-2
Source: natural, plant **Purity:** 99% by TLC, GC
Appearance: liquid **Solubility:** chloroform, ethanol, ethyl ether
Storage: room temperature

1199 **Methyl octanoate** **1 g**
Methyl caprylate; C8:0 Methyl ester

$C_9H_{18}O_2$ **Mol. Wt.:** 158 **CAS#:** 111-11-5
Source: natural, plant **Purity:** 99% by TLC, GC
Appearance: liquid **Solubility:** chloroform, ethanol, ethyl ether
Storage: room temperature

1163 **Nonanoic acid** **100 mg**
Pelargonic acid; C9:0 Fatty acid

$C_9H_{18}O_2$ **Mol. Wt.:** 158 **CAS#:** 112-05-0
Source: synthetic **Purity:** 99% by TLC, GC
Appearance: liquid **Solubility:** chloroform, ethanol, ethyl ether
Storage: room temperature

1164 **Methyl nonanoate** **100 mg**
C9:0 Methyl ester

$C_{10}H_{20}O_2$ **Mol. Wt.:** 172 **CAS#:** 1731-84-6
Source: synthetic **Purity:** 99% by TLC, GC
Appearance: liquid **Solubility:** chloroform, ethanol, ethyl ether
Storage: room temperature

1261 **Methyl decanoate** **500 mg**
Methyl caprate; C10:0 Methyl ester

$C_{11}H_{22}O_2$ **Mol. Wt.:** 186 **CAS#:** 110-42-9
Source: natural, plant **Purity:** 99% by TLC, GC
Appearance: liquid **Solubility:** chloroform, hexane
Storage: room temperature

1165 **Undecanoic acid** **100 mg**
C11:0 Fatty acid

$C_{11}H_{22}O_2$ **Mol. Wt.:** 186 **CAS#:** 112-37-8
Source: synthetic **Purity:** 99% by TLC, GC
Appearance: solid **Solubility:** chloroform, ethanol, ethyl ether
Storage: room temperature

1166 **Methyl undecanoate** **100 mg**
C11:0 Methyl ester

$C_{12}H_{24}O_2$ **Mol. Wt.:** 200 **CAS#:** 1731-86-8
Source: synthetic **Purity:** 99% by TLC, GC
Appearance: liquid **Solubility:** chloroform, ethanol, ethyl ether
Storage: room temperature

1008 **Dodecanoic acid** **1 g**
Lauric acid; C12:0 Fatty acid

$C_{12}H_{24}O_2$ **Mol. Wt.:** 200 **CAS#:** 143-07-7
Source: natural, plant **Purity:** 99% by TLC, GC
Appearance: solid **Solubility:** chloroform, ethanol, ethyl ether
Storage: room temperature

1009 **Methyl dodecanoate** **1 g**
Methyl laurate; C12:0 Methyl ester

$C_{13}H_{26}O_2$ **Mol. Wt.:** 214 **CAS#:** 111-82-0
Source: natural, plant **Purity:** 99% by TLC, GC
Appearance: liquid **Solubility:** chloroform, ethanol, ethyl ether
Storage: room temperature

1161 **Tridecanoic acid** **100 mg**
C13:0 Fatty acid

$C_{13}H_{26}O_2$ **Mol. Wt.:** 214 **CAS#:** 638-53-9
Source: synthetic **Purity:** 99% by TLC, GC
Appearance: solid **Solubility:** chloroform, ethanol, ethyl ether
Storage: room temperature

1162 **Methyl tridecanoate** **100 mg**
C13:0 Methyl ester

$C_{14}H_{28}O_2$ **Mol. Wt.:** 228 **CAS#:** 1731-88-0
Source: synthetic **Purity:** 99% by TLC, GC
Appearance: liquid **Solubility:** chloroform, ethanol, ethyl ether
Storage: room temperature

1010 **Tetradecanoic acid** **1 g**
Myristic acid; C14:0 Fatty acid

$C_{14}H_{28}O_2$ **Mol. Wt.:** 228 **CAS#:** 544-63-8
Source: natural, plant **Purity:** 99% by TLC, GC
Appearance: solid **Solubility:** chloroform, ethanol, ethyl ether
Storage: room temperature

1011 **Methyl tetradecanoate** **1 g**
Methyl myristate; C14:0 Methyl ester

$C_{15}H_{30}O_2$ **Mol. Wt.:** 242 **CAS#:** 124-10-7
Source: natural, plant **Purity:** 99% by TLC, GC
Appearance: liquid **Solubility:** chloroform, ethanol, ethyl ether
Storage: room temperature

1012 **Pentadecanoic acid** **1 g**
C15:0 Fatty acid

$C_{15}H_{30}O_2$ **Mol. Wt.:** 242 **CAS#:** 1002-84-2
Source: synthetic **Purity:** 99% by TLC, GC
Appearance: solid **Solubility:** chloroform, ethanol, ethyl ether
Storage: room temperature

1013 **Methyl pentadecanoate** **1 g**
C15:0 Methyl ester

$C_{16}H_{32}O_2$ **Mol. Wt.:** 256 **CAS#:** 7132-64-1
Source: synthetic **Purity:** 99% by TLC, GC
Appearance: liquid **Solubility:** chloroform, ethanol, ethyl ether
Storage: room temperature

1014 **Hexadecanoic acid** **1 g**
Palmitic acid; C16:0 Fatty acid

$C_{16}H_{32}O_2$ **Mol. Wt.:** 256 **CAS#:** 57-10-3
Source: natural, plant **Purity:** 99% by TLC, GC
Appearance: solid **Solubility:** chloroform, ethanol, ethyl ether
Storage: room temperature

1015 **Methyl hexadecanoate** **1 g**
Methyl palmitate; C16:0 Methyl ester

$C_{17}H_{34}O_2$ **Mol. Wt.:** 270 **CAS#:** 112-39-0
Source: natural, plant **Purity:** 99% by TLC, GC
Appearance: solid **Solubility:** chloroform, ethanol, ethyl ether
Storage: room temperature

1018 **Heptadecanoic acid** **1 g**
Margaric acid; C17:0 Fatty acid

$C_{17}H_{34}O_2$ **Mol. Wt.:** 270 **CAS#:** 506-12-7
Source: synthetic **Purity:** 99% by TLC, GC
Appearance: solid **Solubility:** chloroform, ethanol, ethyl ether
Storage: room temperature

1019 **Methyl heptadecanoate** **1 g**
Methyl margarate; C17:0 Methyl ester

$C_{18}H_{36}O_2$ **Mol. Wt.:** 284 **CAS#:** 1731-92-6
Source: synthetic **Purity:** 99% by TLC, GC
Appearance: solid **Solubility:** chloroform, ethanol, ethyl ether
Storage: room temperature

1020 **Octadecanoic acid** **1 g**
Stearic acid; C18:0 Fatty acid

$C_{18}H_{36}O_2$ **Mol. Wt.:** 284 **CAS#:** 57-11-4
Source: natural, plant **Purity:** 99% by TLC, GC
Appearance: solid **Solubility:** chloroform, ethanol, ethyl ether
Storage: room temperature

1021 **Methyl octadecanoate** **1 g**
Methyl stearate; C18:0 Methyl ester

$C_{19}H_{38}O_2$ **Mol. Wt.:** 298 **CAS#:** 112-61-8
Source: natural, plant **Purity:** 99% by TLC, GC
Appearance: solid **Solubility:** chloroform, ethanol, ethyl ether
Storage: room temperature

1028 **Nonadecanoic acid** **100 mg**
C19:0 Fatty acid

$C_{19}H_{38}O_2$ **Mol. Wt.:** 298 **CAS#:** 646-30-0
Source: synthetic **Purity:** 99% by TLC, GC
Appearance: solid **Solubility:** chloroform, ethyl ether
Storage: room temperature

1029 **Methyl nonadecanoate** **100 mg**
C19:0 Methyl ester

$C_{20}H_{40}O_2$ **Mol. Wt.:** 312 **CAS#:** 1731-94-8
Source: synthetic **Purity:** 99% by TLC, GC
Appearance: solid **Solubility:** chloroform, ethyl ether
Storage: room temperature

1030 **Eicosanoic acid** **500 mg**
Arachidic acid; C20:0 Fatty acid

$C_{20}H_{40}O_2$ **Mol. Wt.:** 312 **CAS#:** 506-30-9
Source: natural, plant **Purity:** 99% by TLC, GC
Appearance: solid **Solubility:** chloroform, ethyl ether
Storage: room temperature

1031 **Methyl eicosanoate** **500 mg**
Methyl arachidate; C20:0 Methyl ester

$C_{21}H_{42}O_2$ **Mol. Wt.:** 327 **CAS#:** 1120-28-1
Source: natural, plant **Purity:** 99% by TLC, GC
Appearance: solid **Solubility:** chloroform, ethyl ether
Storage: room temperature

1241 **Heneicosanoic acid** **100 mg**
C21:0 Fatty acid

$C_{21}H_{42}O_2$ **Mol. Wt.:** 326 **CAS#:** 2363-71-5
Source: synthetic **Purity:** 99% by TLC, GC
Appearance: solid **Solubility:** chloroform, ethyl ether
Storage: room temperature

1242 **Methyl heneicosanoate** **100 mg**
C21:0 Methyl ester

$C_{22}H_{44}O_2$ **Mol. Wt.:** 341 **CAS#:** 6064-90-0
Source: synthetic **Purity:** 99% by TLC, GC
Appearance: solid **Solubility:** chloroform, ethyl ether
Storage: room temperature

1035 **Docosanoic acid** **500 mg**
Behenic acid; C22:0 Fatty acid

$C_{22}H_{44}O_2$ **Mol. Wt.:** 341 **CAS#:** 112-85-6
Source: natural, plant **Purity:** 99% by TLC, GC
Appearance: solid **Solubility:** chloroform, ethyl ether
Storage: room temperature

1036 **Methyl docosanoate** **500 mg**
Methyl behenate; C22:0 Methyl ester

$C_{23}H_{46}O_2$ **Mol. Wt.:** 354 **CAS#:** 929-77-1
Source: natural, plant **Purity:** 99% by TLC, GC
Appearance: solid **Solubility:** chloroform, ethyl ether
Storage: room temperature

1186 **Tricosanoic acid** **100 mg**
C23:0 Fatty acid

$C_{23}H_{46}O_2$ **Mol. Wt.:** 355 **CAS#:** 2433-96-7
Source: semisynthetic, plant **Purity:** 99% by TLC, GC
Appearance: solid **Solubility:** chloroform, ethyl ether
Storage: room temperature

1187 **Methyl tricosanoate** **100 mg**
C23:0 Methyl ester

$C_{24}H_{48}O_2$ **Mol. Wt.:** 368 **CAS#:** 2433-97-8
Source: semisynthetic, plant **Purity:** 99% by TLC, GC
Appearance: solid **Solubility:** chloroform, ethyl ether
Storage: room temperature

1037 **Tetracosanoic acid** **100 mg**
Lignoceric acid; C24:0 Fatty acid

$C_{24}H_{48}O_2$ **Mol. Wt.:** 369 **CAS#:** 557-59-5
Source: synthetic **Purity:** 99% by TLC, GC
Appearance: solid **Solubility:** chloroform, ethyl ether
Storage: room temperature

1038 **Methyl tetracosanoate** **100 mg**
Methyl lignocerate; C24:0 Methyl ester

$C_{25}H_{50}O_2$ **Mol. Wt.:** 382 **CAS#:** 2442-49-1
Source: synthetic **Purity:** 99% by TLC, GC
Appearance: solid **Solubility:** chloroform, ethyl ether
Storage: room temperature

1251 **Hexacosanoic acid** **25 mg**
Cerotic acid; C26:0 Fatty acid

$C_{26}H_{52}O_2$ **Mol. Wt.:** 397 **CAS#:** 506-46-7
Source: synthetic **Purity:** 99% by TLC, GC
Appearance: solid **Solubility:** chloroform, ethyl ether
Storage: room temperature

1252 **Methyl hexacosanoate** **25 mg**
Methyl cerotate; C26:0 Methyl ester

$C_{27}H_{54}O_2$ **Mol. Wt.:** 411 **CAS#:** 5802-82-4
Source: synthetic **Purity:** 99% by TLC, GC
Appearance: solid **Solubility:** chloroform, ethyl ether
Storage: room temperature

1271 **Methyl octacosanoate** **50 mg**
Methyl montanate; C28:0 Methyl ester

$C_{29}H_{58}O_2$ **Mol. Wt.:** 439 **CAS#:** 55682-92-3
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: solid **Solubility:** chloroform, methylene chloride
Storage: room temperature

1273 **Methyl triacontanoate** **50 mg**
Methyl melissate; C30:0 Methyl ester

$C_{31}H_{62}O_2$ **Mol. Wt.:** 467 **CAS#:** 629-83-4
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: solid **Solubility:** chloroform, methylene chloride
Storage: room temperature

1275 **Methyl dotriacontanoate** **50 mg**
Methyl lacceroate; C32:0 Methyl ester

$C_{33}H_{66}O_2$ **Mol. Wt.:** 495 **CAS#:** 41755-79-7
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: solid **Solubility:** chloroform, methylene chloride
Storage: room temperature

Unsaturated Fatty Acids and Methyl Esters

Unsaturated fatty acids are easily oxidized. Flush open containers with argon or nitrogen and store at -20°C, in dark.

1157 **Tetradecenoic acid (*cis*-9)** **100 mg**
Myristoleic acid; C14:1 (*cis*-9) Fatty acid

$C_{14}H_{26}O_2$ **Mol. Wt.:** 226 **CAS#:** 544-64-9
Source: natural, plant **Purity:** 99% by TLC, GC
Appearance: liquid **Solubility:** chloroform, hexane, ethyl ether
Storage: –20°C

1040 **Methyl tetradecenoate (*cis*-9)** **100 mg**
Methyl myristoleate; C14:1 (*cis*-9) Methyl ester

$C_{15}H_{28}O_2$ **Mol. Wt.:** 240 **CAS#:** 56219-06-8
Source: natural, plant **Purity:** 99% by TLC, GC
Appearance: liquid **Solubility:** chloroform, hexane, ethyl ether
Storage: –20°C

1209 **Pentadecenoic acid (*cis*-10)** **50 mg**
C15:1 (*cis*-10) Fatty acid

$C_{15}H_{28}O_2$ **Mol. Wt.:** 240 **CAS#:** 84743-29-3
Source: synthetic **Purity:** 99% by TLC, GC
Appearance: liquid **Solubility:** chloroform, hexane, ethyl ether
Storage: –20°C

1210 **Methyl pentadecenoate (*cis*-10)** **50 mg**
C15:1 (*cis*-10) Methyl ester

$C_{16}H_{30}O_2$ **Mol. Wt.:** 254 **CAS#:** 90176-52-6
Source: synthetic **Purity:** 99% by TLC, GC
Appearance: liquid **Solubility:** chloroform, hexane, ethyl ether
Storage: –20°C

1243 **Hexadecenoic acid (*cis*-6)** **25 mg**
Sapienic acid, C16:1 (*cis*-6) Fatty acid

$C_{16}H_{30}O_2$ **Mol. Wt.:** 254 **CAS#:** 17004-51-2
Source: synthetic **Purity:** 99% by TLC, GC **Identity:** confirmed by MS
Appearance: liquid **Solubility:** ethanol, methanol, chloroform, ethyl ether
Storage: –20°C

1016 **Hexadecenoic acid (*cis*-9)** **100 mg**
Palmitoleic acid; C16:1 (*cis*-9) Fatty acid

$C_{16}H_{30}O_2$ **Mol. Wt.:** 254 **CAS#:** 373-49-9
Source: natural, plant **Purity:** 99% by TLC, GC
Appearance: liquid **Solubility:** chloroform, hexane, ethyl ether
Storage: –20°C

1017 **Methyl hexadecenoate (*cis*-9)** **100 mg**
Methyl palmitoleate; C16:1 (*cis*-9) Methyl ester

$C_{17}H_{32}O_2$ **Mol. Wt.:** 268 **CAS#:** 1120-25-8
Source: natural, plant **Purity:** 99% by TLC, GC
Appearance: liquid **Solubility:** chloroform, hexane, ethyl ether
Storage: –20°C

1147 **Hexadecenoic acid (*trans*-9)** **100 mg**
Palmitelaidic acid; C16:1 (*trans*-9) Fatty acid

$C_{16}H_{30}O_2$ **Mol. Wt.:** 254 **CAS#:** 10030-73-6
Source: synthetic **Purity:** 99% by TLC, GC
Appearance: solid **Solubility:** chloroform, hexane, ethyl ether
Storage: –20°C

1148 **Methyl hexadecenoate (*trans*-9)** **100 mg**
Methyl palmitelaidate; C16:1 (*trans*-9) Methyl ester

$C_{17}H_{32}O_2$ **Mol. Wt.:** 268 **CAS#:** 10030-74-7
Source: synthetic **Purity:** 99% by TLC, GC
Appearance: liquid **Solubility:** chloroform, hexane, ethyl ether
Storage: –20°C

1208 **11-Hexadecenoic acid (92% *cis*, 8% *trans*)** **50 mg**
C16:1 (*cis*-11/*trans*-11) Fatty acid

$C_{16}H_{30}O_2$ **Mol. Wt.:** 254 **CAS#:** 2271-34-3
Source: synthetic **Purity:** >98%, by TLC **Identity:** confirmed by MS
Appearance: liquid **Solubility:** chloroform, ethanol, hexane, methanol
Storage: –20°C

1204 **Heptadecenoic acid (*cis*-10)** **100 mg**
C17:1 (*cis*-10) Fatty acid

$C_{17}H_{32}O_2$ **Mol. Wt.:** 268 **CAS#:** 29743-97-3
Source: synthetic **Purity:** 99% by TLC, GC
Appearance: liquid **Solubility:** chloroform, hexane, ethyl ether
Storage: –20°C

1203 **Methyl heptadecenoate (*cis*-10)** **100 mg**
C17:1 (*cis*-10) Methyl ester

$C_{18}H_{34}O_2$ **Mol. Wt.:** 282 **CAS#:** 75190-82-8
Source: synthetic **Purity:** 99% by TLC, GC
Appearance: liquid **Solubility:** chloroform, hexane, ethyl ether
Storage: –20°C

1022 **Octadecenoic acid (*cis*-9)** **1 g**
Oleic acid; C18:1 (*cis*-9) Fatty acid

$C_{18}H_{34}O_2$ **Mol. Wt.:** 282 **CAS#:** 112-80-1
Source: natural, plant **Purity:** 99% by TLC, GC
Appearance: liquid **Solubility:** chloroform, hexane, ethyl ether
Storage: –20°C

1023 **Methyl octadecenoate (*cis*-9)** **1 g**
Methyl oleate; C18:1 (*cis*-9) Methyl ester

$C_{19}H_{36}O_2$ **Mol. Wt.:** 296 **CAS#:** 112-62-9
Source: natural, plant **Purity:** 99% by TLC, GC
Appearance: liquid **Solubility:** chloroform, hexane, ethyl ether
Storage: –20°C

1149 **Octadecenoic acid (*trans*-9)** **1 g**
Elaidic acid; C18:1 (*trans*-9) Fatty acid

$C_{18}H_{34}O_2$ **Mol. Wt.:** 282 **CAS#:** 112-79-8
Source: synthetic **Purity:** 99% by TLC, GC
Appearance: solid **Solubility:** chloroform, hexane, ethyl ether
Storage: –20°C

1150 **Methyl octadecenoate (*trans*-9)** **1 g**
Methyl elaidate; C18:1 (*trans*-9) Methyl ester

$C_{19}H_{36}O_2$ **Mol. Wt.:** 296 **CAS#:** 1937-62-8
Source: natural, plant **Purity:** 99% by TLC, GC
Appearance: liquid **Solubility:** chloroform, hexane, ethyl ether
Storage: –20°C

1266 **Octadecenoic acid (*cis*-11)** **100 mg**
cis-Vaccenic acid; C18:1(*cis*-11) Fatty acid

$C_{18}H_{34}O_2$ **Mol. Wt.:** 282 **CAS#:** 506-17-2
Source: natural, plant **Purity:** 99% by TLC, GC
Appearance: liquid **Solubility:** chloroform, hexane, ethyl ether
Storage: –20°C

1267 **Methyl octadecenoate (*cis*-11)** **100 mg**
Methyl *cis*-vaccenate; C18:1(*cis*-11) Methyl ester

$C_{19}H_{36}O_2$ **Mol. Wt.:** 296 **CAS#:** 1937-63-9
Source: semisynthetic, plant **Purity:** 99% by TLC, GC
Appearance: liquid **Solubility:** chloroform, hexane, ethyl ether
Storage: –20°C

1262 **Octadecenoic acid (*trans*-11)** **100 mg**
trans-Vaccenic acid; C18:1 (*trans*-11) Fatty acid

$C_{18}H_{34}O_2$ **Mol. Wt.:** 282 **CAS#:** 693-72-1
Source: synthetic **Purity:** 99% by TLC, GC
Appearance: solid **Solubility:** chloroform, hexane, ethyl ether
Storage: –20°C

1263 **Methyl octadecenoate (*trans*-11)** **100 mg**
Methyl *trans*-vaccenate; C18:1 (*trans*-11) Methyl ester

$C_{19}H_{36}O_2$ **Mol. Wt.:** 296 **CAS#:** 6198-58-9
Source: synthetic **Purity:** 99% by TLC, GC
Appearance: liquid **Solubility:** chloroform, hexane, ethyl ether
Storage: –20°C

1024 **Octadecadienoic acid (all *cis*-9,12)** **1 g**
Linoleic acid; C18:2 (all *cis*-9,12) Fatty acid

$C_{18}H_{32}O_2$ **Mol. Wt.:** 280 **CAS#:** 60-33-3
Source: natural, plant **Purity:** 99% by TLC, GC
Appearance: liquid **Solubility:** ethyl ether, ethanol, hexane
Storage: –20°C

1025 **Methyl octadecadienoate (all *cis*-9,12)** **1 g**
Methyl linoleate; C18:2 (all *cis*-9,12) Methyl ester

$C_{19}H_{34}O_2$ **Mol. Wt.:** 294 **CAS#:** 112-63-0
Source: natural, plant **Purity:** 99% by TLC, GC
Appearance: liquid **Solubility:** chloroform, hexane, ethyl ether
Storage: –20°C

1151 **Octadecadienoic acid (all *trans*-9,12)** **100 mg**
Linoelaidic acid (all *trans*-9,12); C18:2 (all *trans*-9,12) Fatty acid

$C_{18}H_{32}O_2$ **Mol. Wt.:** 280 **CAS#:** 506-21-8
Source: semisynthetic, plant **Purity:** 99% by TLC, GC
Appearance: liquid **Solubility:** chloroform, hexane, ethyl ether
Storage: –20°C

1152 **Methyl octadecadienoate (all *trans*-9,12)** **100 mg**
Methyl linoelaidate; C18:2 (all *trans*-9,12) Methyl ester

$C_{19}H_{34}O_2$ **Mol. Wt.:** 294 **CAS#:** 2566-97-4
Source: semisynthetic, plant **Purity:** 99% by TLC, GC
Appearance: liquid **Solubility:** chloroform, hexane, ethyl ether
Storage: –20°C

1026 **Octadecatrienoic acid (all *cis*-9,12,15)** **500 mg**
alpha-Linolenic acid; C18:3 (all *cis*-9,12,15) Fatty acid

$C_{18}H_{30}O_2$ **Mol. Wt.:** 278 **CAS#:** 463-40-1
Source: natural, plant **Purity:** 99% by TLC, GC
Appearance: liquid **Solubility:** chloroform, hexane, ethyl ether
Storage: –20°C

1027 **Methyl octadecatrienoate (all *cis*-9,12,15)** **500 mg**
Methyl *alpha*-linolenate; C18:3 (all *cis*-9,12,15) Methyl ester

$C_{19}H_{32}O_2$ **Mol. Wt.:** 292 **CAS#:** 301-00-8
Source: natural, plant **Purity:** 99% by TLC, GC
Appearance: liquid **Solubility:** chloroform, hexane, ethyl ether
Storage: –20°C

1153 **Octadecatrienoic acid (all *cis*-6,9,12)** **100 mg**
gamma-Linolenic acid; C18:3 (all *cis*-6,9,12) Fatty acid

$C_{18}H_{30}O_2$ **Mol. Wt.:** 278 **CAS#:** 506-26-3
Source: natural, plant **Purity:** 99% by TLC, GC
Appearance: liquid **Solubility:** chloroform, hexane, ethyl ether
Storage: –20°C

1154 **Methyl octadecatrienoate (all *cis*-6,9,12)** **100 mg**
Methyl *gamma*-linolenate; C18:3 (all *cis*-6,9,12) Methyl ester

$C_{19}H_{32}O_2$ **Mol. Wt.:** 292 **CAS#:** 16326-32-2
Source: natural, plant **Purity:** 99% by TLC, GC
Appearance: liquid **Solubility:** chloroform, hexane, ethyl ether
Storage: –20°C

1240 **Methyl punicate** **25 mg**
NEW Methyl 9(Z),11(E),13(Z)-octadecatrienoate; Conjugated linolenic acid methyl ester; CLnA

$C_{19}H_{32}O_2$ **Mol. Wt.:** 292 **CAS#:** 95497-55-5
Source: natural, plant **Purity:** 97+% by TLC, GC **Identity:** confirmed by MS
Appearance: liquid **Solubility:** hexane, ethanol, methanol, chloroform
Storage: –20°C

1234 **Methyl jacarate** **25 mg**
NEW Methyl 8(Z),10(E),12(Z)-octadecatrienoate; Jacaric acid methyl ester;
Conjugated linolenic acid methyl ester; CLnA

$C_{19}H_{32}O_2$ **Mol. Wt.:** 293
Source: natural, plant **Purity:** 98+% by TLC, 96+% by GC **Identity:** confirmed by MS
Appearance: liquid **Solubility:** hexane, ethanol, methanol, chloroform
Storage: –20°C

1233 **Methyl *alpha*-eleostearate** **25 mg**
NEW Methyl 9(Z),11(E),13(E)-octadecatrienoate; *alpha*-Eleostearic acid methyl ester;
Conjugated linolenic acid methyl ester; CLnA

$C_{19}H_{32}O_2$ **Mol. Wt.:** 293 **CAS#:** 4175-47-7
Source: natural, plant **Purity:** 98+% by TLC, GC **Identity:** confirmed by MS
Appearance: liquid **Solubility:** hexane, ethanol, methanol, chloroform
Storage: –20°C

1276 **Stearidonic acid (all *cis*-6,9,12,15)** **25 mg**
Moroctic acid; C18:4 (all *cis*-6,9,12,15) Fatty acid

$C_{18}H_{28}O_2$ **Mol. Wt.:** 276 **CAS#:** 20290-75-9
Source: natural, plant **Purity:** 99% by TLC, GC **Identity:** confirmed by MS
Appearance: liquid **Solubility:** chloroform, hexane, ethyl ether
Storage: –20°C

1277 **Methyl stearidonate (all *cis*-6,9,12,15)** **25 mg**
Moroctic acid methyl ester; C18:4 (all *cis*-6,9,12,15) Methyl ester

$C_{19}H_{30}O_2$ **Mol. Wt.:** 290 **CAS#:** 73097-00-4
Source: natural, plant **Purity:** 99% by TLC, GC **Identity:** confirmed by MS
Appearance: liquid **Solubility:** chloroform, hexane, ethyl ether
Storage: –20°C

1205 **Nonadecenoic acid (*cis*-10)** **100 mg**
C19:1 (*cis*-10) Fatty acid

$C_{19}H_{36}O_2$ **Mol. Wt.:** 296 **CAS#:** 73033-09-7
Source: synthetic **Purity:** 99% by TLC, GC
Appearance: liquid **Solubility:** chloroform, hexane, ethyl ether
Storage: –20°C

1206 **Methyl nonadecenoate (*cis*-10)** **100 mg**
C19:1 (*cis*-10) Methyl ester

$C_{20}H_{38}O_2$ **Mol. Wt.:** 310 **CAS#:** 19788-74-0
Source: synthetic **Purity:** 99% by TLC, GC
Appearance: liquid **Solubility:** chloroform, hexane, ethyl ether
Storage: –20°C

1032 **Eicosenoic acid (*cis*-11)** **100 mg**
Gondoic acid; C20:1 (*cis*-11) Fatty acid

$C_{20}H_{38}O_2$ **Mol. Wt.:** 310 **CAS#:** 5561-99-9
Source: natural, plant **Purity:** 99% by TLC, GC
Appearance: liquid **Solubility:** chloroform, hexane, ethyl ether
Storage: –20°C

1033 **Methyl eicosenoate (*cis*-11)** **100 mg**
Methyl eicosenoate; C20:1 (*cis*-11) Methyl ester; Methyl gondoate

$C_{21}H_{40}O_2$ **Mol. Wt.:** 324 **CAS#:** 2390-09-2
Source: natural, plant **Purity:** 99% by TLC, GC
Appearance: liquid **Solubility:** chloroform, hexane, ethyl ether
Storage: –20°C

1192 **Eicosadienoic acid (all *cis*-11,14)** **100 mg**
C20:2 (all *cis*-11,14) Fatty acid

$C_{20}H_{36}O_2$ **Mol. Wt.:** 309 **CAS#:** 2091-39-6
Source: synthetic **Purity:** 99% by TLC, GC
Appearance: liquid **Solubility:** chloroform, hexane, ethyl ether
Storage: –20°C

1193 **Methyl eicosadienoate (all *cis*-11,14)** **100 mg**
Methyl eicosadienoate; C20:2 (all *cis*-11,14) Methyl ester

$C_{21}H_{38}O_2$ **Mol. Wt.:** 322 **CAS#:** 2463-02-7
Source: synthetic **Purity:** 99% by TLC, GC
Appearance: liquid **Solubility:** chloroform, hexane, ethyl ether
Storage: –20°C

1179 **Methyl eicosatrienoate (all *cis*-5,8,11)** **1 mg/ml, 1 ml**
Mead acid methyl ester; C20:3 (all *cis*-5,8,11) Methyl ester

$C_{21}H_{36}O_2$ **Mol. Wt.:** 320 **CAS#:** 14602-39-2
Source: natural, plant **Purity:** 90% by TLC, GC
Appearance: liquid **Solubility:** chloroform, hexane, ethyl ether
Storage: –20°C **Solvent:** hexane

1269 **Methyl eicosatrienoate (all *cis*-8,11,14)** **50 mg**
Methyl homogamma linolenate; C20:3 (all *cis*-8,11,14) Methyl ester

$C_{21}H_{36}O_2$ **Mol. Wt.:** 321 **CAS#:** 21061-10-9
Source: semisynthetic, plant **Purity:** 99% by TLC, GC
Appearance: liquid **Solubility:** hexane, ethyl ether, chloroform
Storage: –20°C

1042 **Eicosatetraenoic acid (all *cis*-5,8,11,14)** **100 mg**
Arachidonic acid (all *cis*-5,8,11,14); C20:4 (all *cis*-5,8,11,14) Fatty acid

$C_{20}H_{32}O_2$ **Mol. Wt.:** 304 **CAS#:** 506-32-1
Source: natural, fungal **Purity:** 99% by TLC, GC
Appearance: liquid **Solubility:** ethyl ether, hexane, methylene chloride
Storage: –20°C

1034 **Methyl eicosatetraenoate (all *cis*-5,8,11,14)** **100 mg**
Methyl arachidonate; C20:4 (all *cis*-5,8,11,14) Methyl ester

$C_{21}H_{34}O_2$ **Mol. Wt.:** 318 **CAS#:** 2566-89-4
Source: natural, fungal **Purity:** 99% by TLC, GC
Appearance: liquid **Solubility:** chloroform, hexane, ethyl ether
Storage: –20°C

1167 **Eicosapentaenoic acid (all *cis*-5,8,11,14,17)** **25 mg**
EPA ; *omega*-3 Fatty acid; C20:5 (all *cis*-5,8,11,14,17) Fatty acid

$C_{20}H_{30}O_2$ **Mol. Wt.:** 302 **CAS#:** 10417-94-4
Source: natural, fish oil **Purity:** 99% by TLC, GC
Appearance: liquid **Solubility:** chloroform, hexane, ethyl ether, ethanol, DMSO, DMF
Storage: –20°C
Anti-hyperlipoproteinenic agent; 5-LOX inhibitor

1194 **Methyl eicosapentaenoate (all *cis*-5,8,11,14,17)** **25 mg**
EPA methyl ester; Methyl ester of *omega*-3 fatty acid;
C20:5 (all *cis*-5,8,11,14,17) Methyl ester

$C_{21}H_{32}O_2$ **Mol. Wt.:** 316 **CAS#:** 2734-47-6
Source: natural, fish oil **Purity:** 99% by TLC, GC
Appearance: liquid **Solubility:** chloroform, ethyl ether, hexane
Storage: –20°C

1264 **Docosenoic acid (*cis*-13)** **100 mg**
Erucic acid; C22:1 (*cis*-13) Fatty acid

$C_{22}H_{42}O_2$ **Mol. Wt.:** 339 **CAS#:** 112-86-7
Source: natural, plant **Purity:** 99% by TLC, GC
Appearance: solid **Solubility:** chloroform, ethyl ether, hexane
Storage: –20°C

1265 **Methyl docosenoate (*cis*-13)** **100 mg**
Methyl erucate; C22:1 (*cis*-13) Methyl ester

$C_{23}H_{44}O_2$ **Mol. Wt.:** 352 **CAS#:** 1120-34-9
Source: natural, plant **Purity:** 99% by TLC, GC
Appearance: liquid **Solubility:** chloroform, ethyl ether, hexane
Storage: –20°C

1175 **Docosapentaenoic acid (all *cis*-7,10,13,16,19)** **25 mg**
DPA; C22:5 (all *cis*-7,10,13,16,19) Fatty acid

$C_{22}H_{34}O_2$ **Mol. Wt.:** 330 **CAS#:** 24880-45-3
Source: semisynthetic **Purity:** 99% by TLC, GC
Appearance: liquid **Solubility:** chloroform, ethyl ether, hexane
Storage: –20°C

1244 **Methyl docosapentaenoate (all *cis*-7,10,13,16,19)** **25 mg**
DPA methyl ester; C22:5 (all *cis*-7,10,13,16,19) Methyl ester

$C_{23}H_{36}O_2$ **Mol. Wt.:** 344 **CAS#:** 108698-02-8
Source: semisynthetic **Purity:** 99% by TLC, GC
Appearance: liquid **Solubility:** ethyl ether, ethanol, hexane
Storage: –20°C

1136 **Docosahexaenoic acid (all *cis*-4,7,10,13,16,19)** **100 mg**
DHA; C22:6 (all *cis*-4,7,10,13,16,19) *omega*-3 Fatty acid

$C_{22}H_{32}O_2$ **Mol. Wt.:** 328 **CAS#:** 6217-54-5
Source: natural, algae **Purity:** 99% by TLC, GC
Appearance: liquid **Solubility:** ethyl ether, hexane, methylene chloride, ethanol, DMSO, DMF
Storage: –20°C

1041 **Methyl docosahexaenoate (all *cis*-4,7,10,13,16,19)** **100 mg**
DHA methyl ester; Methyl ester of *omega*-3 fatty acid;
C22:6 (all *cis*-4,7,10,13,16,19) Methyl ester

$C_{23}H_{34}O_2$ **Mol. Wt.:** 342 **CAS#:** 2566-90-7
Source: natural, algae **Purity:** 99% by TLC, GC
Appearance: liquid **Solubility:** chloroform, hexane, ethyl ether
Storage: –20°C

1155 **Tetracosenoic acid (*cis*-15)** **100 mg**
Nervonic acid (*cis*-15); C24:1 (*cis*-15) Fatty acid

$C_{24}H_{46}O_2$ **Mol. Wt.:** 367 **CAS#:** 506-37-6
Source: synthetic **Purity:** 99% by TLC, GC
Appearance: solid **Solubility:** chloroform, hexane, ethyl ether
Storage: –20°C

1156 **Methyl tetracosenoate (*cis*-15)** **100 mg**
Methyl nervonate; C24:1 (*cis*-15) Methyl ester

$C_{25}H_{48}O_2$ **Mol. Wt.:** 381 **CAS#:** 2733-88-2
Source: synthetic **Purity:** 99% by TLC, GC
Appearance: liquid **Solubility:** chloroform, hexane, ethyl ether
Storage: –20°C

Trans Fatty Acids and Methyl Esters

1147 **Hexadecenoic acid (*trans*-9)** **100 mg**
Palmitelaidic acid; C16:1 (*trans*-9) Fatty acid

$C_{16}H_{30}O_2$ **Mol. Wt.:** 254 **CAS#:** 10030-73-6
Source: synthetic **Purity:** 99% by TLC, GC
Appearance: solid **Solubility:** chloroform, hexane, ethyl ether
Storage: –20°C

1148 **Methyl hexadecenoate (*trans*-9)** **100 mg**
Methyl palmitelaidate; C16:1 (*trans*-9) Methyl ester

$C_{17}H_{32}O_2$ **Mol. Wt.:** 268 **CAS#:** 10030-74-7
Source: synthetic **Purity:** 99% by TLC, GC
Appearance: liquid **Solubility:** chloroform, hexane, ethyl ether
Storage: –20°C

1149 **Octadecenoic acid (*trans*-9)** **1 g**
Elaidic acid; C18:1 (*trans*-9) Fatty acid

$C_{18}H_{34}O_2$ **Mol. Wt.:** 282 **CAS#:** 112-79-8
Source: synthetic **Purity:** 99% by TLC, GC
Appearance: solid **Solubility:** chloroform, hexane, ethyl ether
Storage: –20°C

1150 **Methyl octadecenoate (*trans*-9)** **1 g**
Methyl elaidate; C18:1 (*trans*-9) Methyl ester

$C_{19}H_{36}O_2$ **Mol. Wt.:** 296 **CAS#:** 1937-62-8
Source: natural, plant **Purity:** 99% by TLC, GC
Appearance: liquid **Solubility:** chloroform, hexane, ethyl ether
Storage: –20°C

1262 **Octadecenoic acid (*trans*-11)** **100 mg**

trans-Vaccenic acid; C18:1 (*trans*-11) Fatty acid

$C_{18}H_{34}O_2$ **Mol. Wt.:** 282 **CAS#:** 693-72-1
Source: synthetic **Purity:** 99% by TLC, GC
Appearance: solid **Solubility:** chloroform, hexane, ethyl ether
Storage: –20°C

1263 **Methyl octadecenoate (*trans*-11)** **100 mg**

Methyl *trans*-vaccenate; C18:1 (*trans*-11) Methyl ester

$C_{19}H_{36}O_2$ **Mol. Wt.:** 296 **CAS#:** 6198-58-9
Source: synthetic **Purity:** 99% by TLC, GC
Appearance: liquid **Solubility:** chloroform, hexane, ethyl ether
Storage: –20°C

1151 **Octadecadienoic acid (all *trans*-9,12)** **100 mg**

Linoelaidic acid (all *trans*-9,12); C18:2 (all *trans*-9,12) Fatty acid

$C_{18}H_{32}O_2$ **Mol. Wt.:** 280 **CAS#:** 506-21-8
Source: semisynthetic, plant **Purity:** 99% by TLC, GC
Appearance: liquid **Solubility:** chloroform, hexane, ethyl ether
Storage: –20°C

1152 **Methyl octadecadienoate (all *trans*-9,12)** **100 mg**

Methyl linoelaidate; C18:2 (all *trans*-9,12) Methyl ester

$C_{19}H_{34}O_2$ **Mol. Wt.:** 294 **CAS#:** 2566-97-4
Source: semisynthetic, plant **Purity:** 99% by TLC, GC
Appearance: liquid **Solubility:** chloroform, hexane, ethyl ether
Storage: –20°C

1131 ***Cis-Trans* FAME Isomer Standard Mixture** **5.5 mg/ml, 5 ml**

Source: margarine
Appearance: liquid
Storage: –20°C **Solvent:** methylene chloride

Analysis of positional *cis-trans* fatty acid isomers is ever more important in light of the new food industry rules. These isomers can be resolved on Supelco SP-2560 or an equivalent capillary GC column. Use this specially formulated mixture to ensure proper operation of your column for this tricky separation. Mixture consists of *cis-trans* fatty acid isomers as methyl esters in methylene chloride.

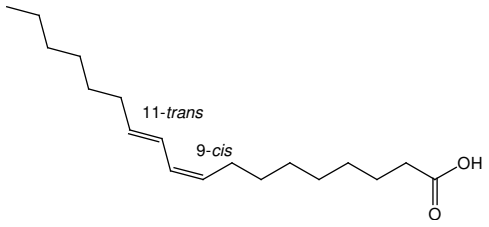
This is a qualitative mixture containing:
C16:0, C18:0, C18:1 *trans* isomers (4 peaks), C18:1 *cis* & *trans* isomers (2 peaks), C18:1 *cis* isomers (4 peaks), C18:2, C20:0, C20:1 and C18:3 (same peak), C22:0
Listed in order of their elution using a SP-2560 100m x 0.25mm x 0.2µm capillary column.

Conjugated Linoleic Acid (CLA) Isomers

Linoleic acid is an essential fatty acid (18:2 ω6) of which several naturally occurring conjugated derivatives have been identified. These derivatives, called "conjugated linoleic acid" or CLA can have the two double bonds mainly in the 9 and 11 or in the 10 and 12 positions, resulting in eight possible geometric isomers. CLA occurs in meat (41) and dairy products (42,43). In both cases, the 9(Z),11(E)-isomer is predominant and is thought to be the biologically active form. CLA assimilated through the diet of animals is found in the intestinal mucosa, liver and adipose tissue (44). See also review article by Parodi (43). CLA has several biological properties. It's anti-carcinogenic activity has been demonstrated by its ability to inhibit chemically induced tumor formation in animal models of carcinogenesis (41,45-47). The addition of CLA to culture medium suppresses the *in vitro* growth of human melanoma, colorectal and breast cancer cells (48). CLA also exhibits anti-atherogenic activity. Addition of CLA to a controlled atherogenic diet significantly reduced the development of atherosclerosis in hamsters and rabbits (49,50). Animals fed a diet containing CLA also had lower levels of low-density lipoprotein (LDL) cholesterol. CLA may be involved in regulating fat and protein metabolism (51,52). Several species of animals fed CLA-supplemented diets showed improved feed efficiency. Lean body mass increased while body fat was reduced. This seems to be due, mainly or exclusively, to the 10(E),12(Z)-isomer (catalog # 1249, see below). CLA competes with linoleate for Δ6 desaturase (53). Dietary CLA normalizes impaired glucose tolerance in the Zucker diabetic fatty *fa/fa* rat (54) *via* activation of PPAR γ, a result which bears on the possible ameliorization or prevention of NIDDM. The 11(Z),13(E)-isomer has been shown to be concentrated in the heart and in mitochondria.
See Literature References on page 109.

CLA Research is Being Redone With Our Highly Pure Isomers

Most studies to date have utilized a mixture of CLA isomers containing less than 30% of the presumed active 9(Z),11(E)-isomer (55,56). In addition to the 9,11- and 10,12-isomers, 8,10- and 11,13-isomers have recently been identified in the widely used mixture (56,57). Matreya offers a highly pure CLA which is 98+% the active 9,11-"cis, trans" isomer. The corresponding "*trans*,*trans*" and "*cis*,*cis*" isomers are also available. In addition, we now offer the pure 10(E),12(Z)-isomer, which has been widely sought for comparison studies.
See Literature References on page 109.



1245 **9(Z),11(E)-Octadecadienoic acid** **25 mg**
9-*cis*, 11-*trans* CLA

$C_{18}H_{32}O_2$ **Mol. Wt.:** 280 **CAS#:** 2540-56-9
Source: synthetic **Purity:** 98+% by TLC, GC **Identity:** confirmed by MS
Appearance: liquid **Solubility:** chloroform, ethanol, hexane, methanol, DMSO
Storage: –20°C

1278 **9(Z),11(E)-Octadecadienoic acid (Na^+ salt)** **25 mg**
9-*cis*,11-*trans*-CLA (Na^+ salt)

$C_{18}H_{31}NaO_2$ **Mol. Wt.:** 302
Source: synthetic **Purity:** 98+% by TLC, GC **Identity:** confirmed by MS
Appearance: solid **Solubility:** water, methanol, DMSO
Storage: –20°C

1255 **Methyl 9(Z),11(E)-octadecadienoate** **25 mg**
Methyl ester of CLA (9-*cis*, 11-*trans*)

$C_{19}H_{34}O_2$ **Mol. Wt.:** 294 **CAS#:** 13058-52-1
Source: synthetic **Purity:** 98+% by TLC, GC **Identity:** confirmed by MS
Appearance: liquid **Solubility:** chloroform, ethanol, hexane, methanol
Storage: –20°C

1181 **9(E),11(E)-Octadecadienoic acid** **25 mg**
9-*trans*, 11-*trans* CLA

$C_{18}H_{32}O_2$ **Mol. Wt.:** 280 **CAS#:** 544-71-8
Source: synthetic **Purity:** 98+% by TLC, GC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, ethanol, hexane, methanol
Storage: –20°C **Melting Point (°C):** 55-57

1257 **Methyl 9(E),11(E)-octadecadienoate** **25 mg**
Methyl ester of CLA (9-*trans*, 11-*trans*)

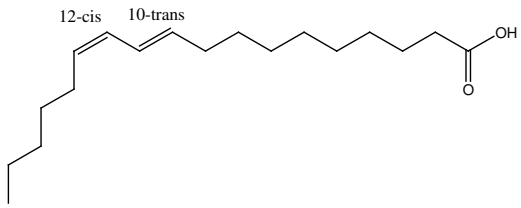
$C_{19}H_{34}O_2$ **Mol. Wt.:** 294 **CAS#:** 13038-47-6
Source: synthetic **Purity:** 98+% by TLC, GC **Identity:** confirmed by MS
Appearance: liquid **Solubility:** chloroform, ethanol, hexane, methanol
Storage: –20°C

1248 **9(Z),11(Z)-Octadecadienoic acid** **25 mg**
9-*cis*, 11-*cis* CLA

$C_{18}H_{32}O_2$ **Mol. Wt.:** 280 **CAS#:** 544-40-7
Source: synthetic **Purity:** 96+% by TLC, GC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, ethanol, methanol, ethyl ether
Storage: –20°C **Melting Point (°C):** 40-42

1256 **Methyl 9(Z),11(Z)-octadecadienoate** **25 mg**
Methyl ester of CLA (9-*cis*, 11-*cis*)

$C_{19}H_{34}O_2$ **Mol. Wt.:** 294
Source: synthetic **Purity:** 96+% by TLC, GC
Appearance: liquid **Solubility:** chloroform, ethanol, hexane, methanol
Storage: –20°C



1249 **10(E),12(Z)-Octadecadienoic acid** **25 mg**
10-*trans*, 12-*cis* CLA

$C_{18}H_{32}O_2$ **Mol. Wt.:** 280 **CAS#:** 2420-44-2
Source: synthetic **Purity:** 98+% by TLC, GC **Identity:** confirmed by MS
Appearance: liquid **Solubility:** chloroform, ethanol, hexane, methanol
Storage: –20°C

1254 **Methyl 10(E),12(Z)-octadecadienoate** **25 mg**
Methyl ester of CLA (10-*trans*, 12-*cis*)

$C_{19}H_{34}O_2$ **Mol. Wt.:** 294 **CAS#:** 21870-97-3
Source: synthetic **Purity:** 98+% by TLC, GC **Identity:** confirmed by MS
Appearance: liquid **Solubility:** chloroform, ethanol, hexane, methanol
Storage: –20°C

1240 **Methyl punicate** **25 mg**
NEW Methyl 9(Z),11(E),13(Z)-octadecatrienoate; Conjugated linolenic acid methyl ester; CLnA

$C_{19}H_{32}O_2$ **Mol. Wt.:** 292 **CAS#:** 95497-55-5
Source: natural, plant **Purity:** 97+% by TLC, GC **Identity:** confirmed by MS
Appearance: liquid **Solubility:** hexane, ethanol, methanol, chloroform
Storage: –20°C

1234 **Methyl jacarate** **25 mg**
NEW
Methyl 8(Z),10(E),12(Z)-octadecatrienoate; Jacaric acid methyl ester;
Conjugated linolenic acid methyl ester; CLnA

$C_{19}H_{32}O_2$ **Mol. Wt.:** 293
Source: natural, plant **Purity:** 98+% by TLC, 96+% by GC **Identity:** confirmed by MS
Appearance: liquid **Solubility:** hexane, ethanol, methanol, chloroform
Storage: –20°C

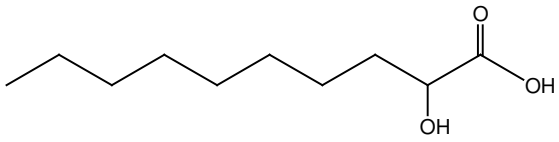
1233 **Methyl *alpha*-eleostearate** **25 mg**
NEW
Methyl 9(Z),11(E),13(E)-octadecatrienoate; *alpha*-Eleostearic acid methyl ester;
Conjugated linolenic acid methyl ester; CLnA

$C_{19}H_{32}O_2$ **Mol. Wt.:** 293 **CAS#:** 4175-47-7
Source: natural, plant **Purity:** 98+% by TLC, GC **Identity:** confirmed by MS
Appearance: liquid **Solubility:** hexane, ethanol, methanol, chloroform
Storage: –20°C

Hydroxy Fatty Acids

2-Hydroxy Fatty Acids and Methyl Esters

These products are racemic and 98+% pure by GC and TLC. The 2-hydroxy fatty acids are components of glycosphingolipids and are involved in fatty acid degradation. They are stable and are supplied neat in vials.



1758 **2-Hydroxydecanoic acid** **50 mg**
2-Hydroxy C10:0 fatty acid

$C_{10}H_{20}O_3$ **Mol. Wt.:** 188 **CAS#:** 5393-81-7
Source: synthetic **Purity:** 98+% by TLC, GC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, methanol
Storage: –20°C

1759 **Methyl 2-hydroxydecanoate** **50 mg**
2-Hydroxy C10:0 methyl ester

$C_{11}H_{22}O_3$ **Mol. Wt.:** 202 **CAS#:** 71271-24-4
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: solid **Solubility:** chloroform, methanol
Storage: –20°C

1701 **2-Hydroxydodecanoic acid** **50 mg**
2-Hydroxy C12:0 fatty acid

$C_{12}H_{24}O_3$ **Mol. Wt.:** 216 **CAS#:** 2984-55-6
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: solid **Solubility:** chloroform, methanol
Storage: –20°C

1702 **Methyl 2-hydroxydodecanoate** **50 mg**
2-Hydroxy C12:0 methyl ester

$C_{13}H_{26}O_3$ **Mol. Wt.:** 230 **CAS#:** 51067-85-7
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: solid **Solubility:** chloroform, ethyl ether, methanol
Storage: –20°C

1703 **2-Hydroxytetradecanoic acid** **50 mg**
2-Hydroxy C14:0 fatty acid

$C_{14}H_{28}O_3$ **Mol. Wt.:** 244 **CAS#:** 2507-55-3
Source: synthetic **Purity:** 98+% by TLC, GC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, methanol
Storage: –20°C **Melting Point (°C):** 81-82

1704 **Methyl 2-hydroxytetradecanoate** **50 mg**
2-Hydroxy C14:0 methyl ester

$C_{15}H_{30}O_3$ **Mol. Wt.:** 258 **CAS#:** 56009-40-6
Source: synthetic **Purity:** 98+% by TLC, GC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, ethyl ether, methanol
Storage: –20°C

1705 **2-Hydroxyhexadecanoic acid** **50 mg**
2-Hydroxy C16:0 fatty acid

$C_{16}H_{32}O_3$ **Mol. Wt.:** 272 **CAS#:** 764-67-0
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: solid **Solubility:** methanol, chloroform/methanol, 2:1
Storage: –20°C **Melting Point (°C):** 86-87

1706 **Methyl 2-hydroxyhexadecanoate** **50 mg**
2-Hydroxy C16:0 methyl ester

$C_{17}H_{34}O_3$ **Mol. Wt.:** 286 **CAS#:** 16742-51-1
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: solid **Solubility:** chloroform, ethyl ether, methanol
Storage: –20°C **Melting Point (°C):** 59-60

1707 **2-Hydroxyoctadecanoic acid** **50 mg**
2-Hydroxy C18:0 fatty acid

$C_{18}H_{36}O_3$ **Mol. Wt.:** 300 **CAS#:** 629-22-1
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: solid **Solubility:** chloroform/methanol, 5:1
Storage: –20°C **Melting Point (°C):** 92-93

1708 **Methyl 2-hydroxyoctadecanoate** **50 mg**
2-Hydroxy C18:0 methyl ester

$C_{19}H_{38}O_3$ **Mol. Wt.:** 315 **CAS#:** 2420-35-1
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: solid **Solubility:** chloroform, ethyl ether, methanol
Storage: –20°C **Melting Point (°C):** 64-66

1709 **2-Hydroxyeicosanoic acid** **25 mg**
2-Hydroxy C20:0 fatty acid

$C_{20}H_{40}O_3$ **Mol. Wt.:** 329 **CAS#:** 16742-48-6
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: solid **Solubility:** chloroform/methanol, 5:1
Storage: –20°C **Melting Point (°C):** 91-92

1710 **Methyl 2-hydroxyeicosanoate** **25 mg**
2-Hydroxy C20:0 methyl ester

$C_{21}H_{42}O_3$ **Mol. Wt.:** 343 **CAS#:**16742-49-7
Source: synthetic **Purity:** 98+% by TLC, GC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, ethyl ether
Storage: –20°C **Melting Point (°C):** 62-64

1711 **2-Hydroxydocosanoic acid** **25 mg**
2-Hydroxy C22:0 fatty acid

$C_{22}H_{44}O_3$ **Mol. Wt.:** 356 **CAS#:** 13980-14-8
Source: synthetic **Purity:** 98+% by TLC, GC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol, 5:1
Storage: –20°C **Melting Point (°C):** 96-97

1712 **Methyl 2-hydroxydocosanoate** **25 mg**
2-Hydroxy C22:0 methyl ester

$C_{23}H_{46}O_3$ **Mol. Wt.:** 371 **CAS#:** 13980-17-1
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: solid **Solubility:** chloroform, ethyl ether
Storage: –20°C **Melting Point (°C):** 72-73

1713 **2-Hydroxytricosanoic acid** **10 mg**
2-Hydroxy C23:0 fatty acid

$C_{23}H_{46}O_3$ **Mol. Wt.:** 371 **CAS#:** 2718-37-8
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: solid **Solubility:** chloroform/methanol, 5:1
Storage: –20°C **Melting Point (°C):** 98-99

1714 **Methyl 2-hydroxytricosanoate** **10 mg**
2-Hydroxy C23:0 methyl ester

$C_{24}H_{48}O_3$ **Mol. Wt.:** 385 **CAS#:** 118745-41-8
Source: synthetic **Purity:** 98+% by TLC, GC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, ethyl ether
Storage: –20°C **Melting Point (°C):** 68-70

1715 **2-Hydroxytetracosanoic acid** **5 mg**
2-Hydroxylignoceric acid; 2-Hydroxy C24:0 fatty acid; Cerebronic acid

$C_{24}H_{48}O_3$ **Mol. Wt.:** 385 **CAS#:** 544-57-0
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: solid **Solubility:** chloroform/methanol, 5:1
Storage: –20°C **Melting Point (°C):** 101-104

1716 **Methyl 2-hydroxytetracosanoate** **5 mg**
Methyl 2-hydroxylignocerate; 2-Hydroxy C24:0 methyl ester

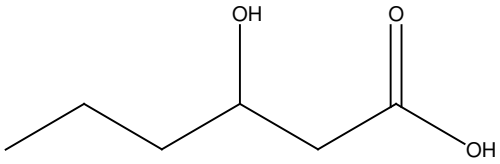
$C_{25}H_{50}O_3$ **Mol. Wt.:** 399 **CAS#:** 2433-95-6
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: solid **Solubility:** chloroform, ethyl ether
Storage: –20°C **Melting Point (°C):** 77-80

1722 **2-Hydroxy Methyl Ester Mixture** **10 mg/ml, 1 ml**
Quantitative mixture

Source: synthetic
Appearance: liquid **Solubility:** chloroform
Storage: –20°C **Solvent:** chloroform
Contains: 2-OH C14:0, 20.0%; 2-OH C16:0, 20.0%; 2-OH C18:0, 15.0%; 2-OH C20:0, 15.0%; 2-OH C22:0, 10.0%; 2-OH C23:0, 10.0%; 2-OH C24:0, 10.0%

3-Hydroxy Fatty Acids and Methyl Esters

These products are racemic and 98+% pure by GC and TLC. 3-Hydroxy fatty acids occur in the lipid fraction of many microorganisms and are useful in the typing of microbial isolates. They are stable and are supplied neat in vials.



1747 **3-Hydroxyhexanoic acid** **25 mg**
3-Hydroxy C6:0 fatty acid

$C_6H_{12}O_3$ **Mol. Wt.:** 132 **CAS#:** 10191-24-9
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: liquid **Solubility:** chloroform, ethanol, methanol
Storage: –20°C

1748 **Methyl 3-hydroxyhexanoate** **25 mg**
3-Hydroxy C6:0 methyl ester

$C_7H_{14}O_3$ **Mol. Wt.:** 146 **CAS#:** 21188-58-9
Source: synthetic **Purity:** 98+% by TLC, GC **Identity:** confirmed by MS
Appearance: liquid **Solubility:** chloroform, ethanol, methanol
Storage: –20°C

1745 **3-Hydroxyoctanoic acid** **25 mg**
3-Hydroxy C8:0 fatty acid

$C_8H_{16}O_3$ **Mol. Wt.:** 160 **CAS#:** 88930-08-9
Source: synthetic **Purity:** 98+% by TLC, GC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, ethanol, methanol
Storage: –20°C

1746 **Methyl 3-hydroxyoctanoate** **25 mg**
3-Hydroxy C8:0 methyl ester

$C_9H_{18}O_3$ **Mol. Wt.:** 174 **CAS#:** 85549-54-8
Source: synthetic **Purity:** 98+% by TLC, GC **Identity:** confirmed by MS
Appearance: liquid **Solubility:** chloroform, ethanol, ethyl ether
Storage: –20°C

1725 **3-Hydroxynonanoic acid** **25 mg**
3-Hydroxy C9:0 fatty acid

$C_9H_{18}O_3$ **Mol. Wt.:** 174 **CAS#:** 88930-09-0
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: solid **Solubility:** chloroform, ethanol, methanol
Storage: –20°C **Melting Point (°C):** 60-62

1726 **Methyl 3-hydroxynonanoate** **25 mg**
3-Hydroxy C9:0 methyl ester

$C_{10}H_{20}O_3$ **Mol. Wt.:** 188 **CAS#:** 83968-06-3
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: liquid **Solubility:** chloroform, ethanol, ethyl ether
Storage: –20°C

1727 **3-Hydroxydecanoic acid** **25 mg**
3-Hydroxy C10:0 fatty acid

$C_{10}H_{20}O_3$ **Mol. Wt.:** 188 **CAS#:** 5561-87-5
Source: synthetic **Purity:** 98+% by TLC, GC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, ethanol, methanol
Storage: –20°C **Melting Point (°C):** 57-60

1728 **Methyl 3-hydroxydecanoate** **25 mg**
3-Hydroxy C10:0 methyl ester

$C_{11}H_{22}O_3$ **Mol. Wt.:** 202 **CAS#:** 62675-82-5
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: liquid **Solubility:** chloroform, ethanol, methanol
Storage: –20°C

1729 **3-Hydroxyundecanoic acid** **25 mg**
3-Hydroxy C11:0 fatty acid

$C_{11}H_{22}O_3$ **Mol. Wt.:** 202 **CAS#:** 40165-88-6
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: solid **Solubility:** chloroform, ethanol, methanol
Storage: –20°C **Melting Point (°C):** 74-76

1730 **Methyl 3-hydroxyundecanoate** **25 mg**
3-Hydroxy C11:0 methyl ester

$C_{12}H_{24}O_3$ **Mol. Wt.:** 216 **CAS#:** 127593-21-9
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: liquid **Solubility:** chloroform, ethanol, methanol
Storage: –20°C

1731 **3-Hydroxydodecanoic acid** **25 mg**
3-Hydroxy C12:0 fatty acid

$C_{12}H_{24}O_3$ **Mol. Wt.:** 216 **CAS#:** 1883-13-2
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: solid **Solubility:** ethanol, methanol
Storage: –20°C **Melting Point (°C):** 71-72

1732 **Methyl 3-hydroxydodecanoate** **25 mg**
3-Hydroxy C12:0 methyl ester

$C_{13}H_{26}O_3$ **Mol. Wt.:** 230 **CAS#:** 85464-97-7
Source: synthetic **Purity:** 98+% by TLC, GC **Identity:** confirmed by MS
Appearance: liquid **Solubility:** chloroform, ethanol, ethyl ether
Storage: –20°C

1733 **3-Hydroxytridecanoic acid** **25 mg**
3-Hydroxy C13:0 fatty acid

$C_{13}H_{26}O_3$ **Mol. Wt.:** 230 **CAS#:** 32602-69-0
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: solid **Solubility:** chloroform, ethanol, methanol
Storage: –20°C **Melting Point (°C):** 80-83

1734 **Methyl 3-hydroxytridecanoate** **25 mg**
3-Hydroxy C13:0 methyl ester

$C_{14}H_{28}O_3$ **Mol. Wt.:** 244
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: solid **Solubility:** chloroform, ethyl ether
Storage: –20°C

1735 **3-Hydroxytetradecanoic acid** **25 mg**
3-Hydroxy C14:0 fatty acid

$C_{14}H_{28}O_3$ **Mol. Wt.:** 244 **CAS#:** 3422-31-9
Source: synthetic **Purity:** 98+% by TLC, GC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, ethanol, methanol
Storage: –20°C **Melting Point (°C):** 80-81

1736 **Methyl 3-hydroxytetradecanoate** **25 mg**
3-Hydroxy C14:0 methyl ester

$C_{15}H_{30}O_3$ **Mol. Wt.:** 258 **CAS#:** 55682-83-2
Source: synthetic **Purity:** 98+% by TLC, GC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, ethyl ether, methanol
Storage: –20°C **Melting Point (°C):** 36-37

1739 **3-Hydroxyhexadecanoic acid** **25 mg**
3-Hydroxy C16:0 fatty acid

$C_{16}H_{32}O_3$ **Mol. Wt.:** 272 **CAS#:** 928-17-6
Source: synthetic **Purity:** 98+% by TLC, GC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, ethanol, methanol
Storage: –20°C **Melting Point (°C):** 85-86

1740 **Methyl 3-hydroxyhexadecanoate** **25 mg**
3-Hydroxy C16:0 methyl ester

$C_{17}H_{34}O_3$ **Mol. Wt.:** 286 **CAS#:** 51883-36-4
Source: synthetic **Purity:** 98+% by TLC, GC **Identity:** confirmed by MS
Appearance: solid **Solubility:** ethanol, methanol
Storage: –20°C **Melting Point (°C):** 43-45

1741 **3-Hydroxyheptadecanoic acid** **25 mg**
3-Hydroxy C17:0 fatty acid

$C_{17}H_{34}O_3$ **Mol. Wt.:** 286 **CAS#:** 40165-89-7
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: solid **Solubility:** ethanol, methanol
Storage: –20°C **Melting Point (°C):** 93-95

1742 **Methyl 3-hydroxyheptadecanoate** **25 mg**
3-Hydroxy C17:0 methyl ester

$C_{18}H_{36}O_3$ **Mol. Wt.:** 300 **CAS#:** 112538-92-8
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: solid **Solubility:** ethanol, methanol
Storage: –20°C **Melting Point (°C):** 53-55

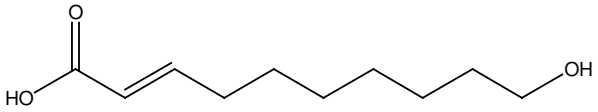
1743 **3-Hydroxyoctadecanoic acid** **25 mg**
3-Hydroxy C18:0 fatty acid

$C_{18}H_{36}O_3$ **Mol. Wt.:** 300 **CAS#:** 45261-96-9
Source: synthetic **Purity:** 98+% by TLC, GC **Identity:** confirmed by MS
Appearance: solid **Solubility:** ethanol, methanol
Storage: –20°C **Melting Point (°C):** 52-54

1744 **Methyl 3-hydroxyoctadecanoate** **25 mg**
3-Hydroxy C18:0 methyl ester

$C_{19}H_{38}O_3$ **Mol. Wt.:** 314 **CAS#:** 14531-40-9
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: solid **Solubility:** ethanol, methanol
Storage: –20°C **Melting Point (°C):** 52-54

Omega Hydroxy Fatty Acids



1754 **Royal Jelly acid** **50 mg**
10-Hydroxy-2-(E)-decenoic acid; *omega*-Hydroxy C10:1 (2-*trans*) fatty acid; 10-HDA

$C_{10}H_{18}O_3$ **Mol. Wt.:** 186 **CAS#:** 14113-05-4
Source: synthetic **Purity:** 98+% by TLC, GC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, ethanol, methanol
Storage: –20°C **Melting Point (°C):** 63-65

1881 **15-Hydroxypentadecanoic acid** **25 mg**
omega-Hydroxy C15:0 fatty acid

$C_{15}H_{30}O_3$ **Mol. Wt.:** 258 **CAS#:** 4617-33-8
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: solid **Solubility:** chloroform, ethanol, methanol
Storage: room temperature **Melting Point (°C):** 84-86

1882 **Methyl 15-hydroxypentadecanoate** **25 mg**
omega-Hydroxy C15:0 methyl ester

$C_{16}H_{32}O_3$ **Mol. Wt.:** 272 **CAS#:** 76529-42-5
Source: synthetic **Purity:** 98+% by TLC, GC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, warm ethanol, ethyl ether
Storage: room temperature **Melting Point (°C):** 50-52

1760 **17-Hydroxyheptadecanoic acid** **25 mg**
omega-Hydroxy C17:0 fatty acid

$C_{17}H_{34}O_3$ **Mol. Wt.:** 286 **CAS#:** 13099-34-8
Source: synthetic **Purity:** 98+% by TLC, GC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, warm ethanol, ethyl ether
Storage: room temperature **Melting Point (°C):** 93-95

1761 **Methyl 17-hydroxyheptadecanoate** **25 mg**
omega-Hydroxy C17:0 methyl ester

$C_{18}H_{36}O_3$ **Mol. Wt.:** 300 **CAS#:** 94036-00-7
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: solid **Solubility:** chloroform, warm ethanol, ethyl ether
Storage: room temperature **Melting Point (°C):** 59-63

1877 **20-Hydroxyeicosanoic acid** **25 mg**
omega-Hydroxy C20:0 fatty acid

$C_{20}H_{40}O_3$ **Mol. Wt.:** 328 **CAS#:** 62643-46-3
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: solid **Solubility:** chloroform, warm ethanol
Storage: room temperature **Melting Point (°C):** 96-98

1878 **Methyl 20-hydroxyeicosanoate** **25 mg**
omega-Hydroxy C20:0 methyl ester

$C_{21}H_{42}O_3$ **Mol. Wt.:** 342 **CAS#:** 37477-29-5
Source: synthetic **Purity:** 98+% by TLC, GC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, warm ethanol, ethyl ether
Storage: room temperature **Melting Point (°C):** 69-71

1880 **Methyl 21-hydroxyheneicosanoate** **25 mg**
omega-Hydroxy C21:0 methyl ester

$C_{22}H_{44}O_3$ **Mol. Wt.:** 356 **CAS#:** 94035-98-0
Source: synthetic **Purity:** 98+% by TLC, GC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, warm ethanol, ethyl ether
Storage: room temperature **Melting Point (°C):** 73-76

1818 **22-Hydroxydocosanoic acid** **25 mg**
omega-Hydroxy C22:0 fatty acid

$C_{22}H_{44}O_3$ **Mol. Wt.:** 356 **CAS#:** 506-45-6
Source: synthetic **Purity:** 98+% by TLC, GC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol, 2:1
Storage: room temperature **Melting Point (°C):** 100-102

1819 **Methyl 22-hydroxydocosanoate** **25 mg**
omega-Hydroxy C22:0 methyl ester

$C_{23}H_{46}O_3$ **Mol. Wt.:** 370
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: solid **Solubility:** chloroform, warm ethanol, ethyl ether
Storage: room temperature **Melting Point (°C):** 73-75

1883 **Methyl 27-hydroxyheptacosanoate** **25 mg**
omega-Hydroxy C27:0 methyl ester

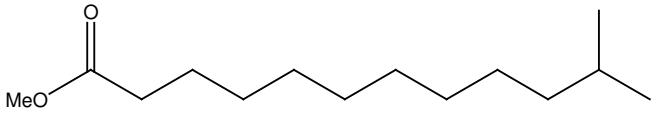
$C_{28}H_{56}O_3$ **Mol. Wt.:** 440
Source: synthetic **Purity:** 97+% by TLC, GC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform
Storage: room temperature **Melting Point (°C):** 85-89

1884 **Methyl 30-hydroxytriacontanoate** **25 mg**
omega-Hydroxy C30:0 methyl ester

$C_{31}H_{62}O_3$ **Mol. Wt.:** 482 **CAS#:** 79162-70-2
Source: synthetic **Purity:** 97+% by TLC, GC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform
Storage: room temperature **Melting Point (°C):** 88-91

Branched and Cyclic Fatty Acids

Iso-Fatty Acids and Methyl Esters



1656 **Methyl 11-methyldodecanoate** **20 mg**
iso-Tridecanoic methyl ester; iso C13 Methyl ester

$C_{14}H_{28}O_2$ **Mol. Wt.:** 228 **CAS#:** 5129-57-7
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: liquid **Solubility:** hexane, ethyl ether, methylene chloride
Storage: –20°C

1657 **Methyl 12-methyltridecanoate** **20 mg**
iso-Tetradecanoic methyl ester; iso C14 Methyl ester

$C_{15}H_{30}O_2$ **Mol. Wt.:** 242 **CAS#:** 5129-58-8
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: liquid **Solubility:** chloroform, ethyl ether, ethanol
Storage: –20°C

1605 **13-Methyltetradecanoic acid** **20 mg**
iso-Pentadecanoic acid; iso C15 Fatty acid

$C_{15}H_{30}O_2$ **Mol. Wt.:** 242 **CAS#:** 2485-71-4
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: solid **Solubility:** chloroform, ethyl ether, ethanol
Storage: –20°C

1600 **Methyl 13-methyltetradecanoate** **20 mg**
iso-Pentadecanoic methyl ester; iso C15 Methyl ester

$C_{16}H_{32}O_2$ **Mol. Wt.:** 256 **CAS#:** 5129-59-9
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: liquid **Solubility:** chloroform, ethyl ether, ethanol
Storage: –20°C

1601 **Methyl 14-methylpentadecanoate** **20 mg**
iso-Palmitic methyl ester; iso C16 Methyl ester

$C_{17}H_{34}O_2$ **Mol. Wt.:** 270 **CAS#:** 5129-60-2
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: liquid **Solubility:** chloroform, ethyl ether, ethanol
Storage: –20°C

1606 **15-Methylhexadecanoic acid** **20 mg**
iso-Heptadecanoic acid; iso C17 Fatty acid

$C_{17}H_{34}O_2$ **Mol. Wt.:** 270 **CAS#:** 1603-03-8
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: solid **Solubility:** chloroform, ethyl ether, ethanol
Storage: –20°C

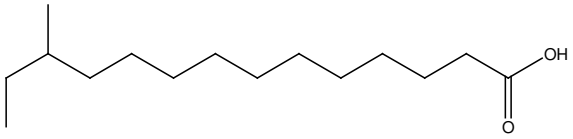
1602 **Methyl 15-methylhexadecanoate** **20 mg**
iso-Heptadecanoic methyl ester; iso C17 Methyl ester

$C_{18}H_{36}O_2$ **Mol. Wt.:** 284 **CAS#:** 6929-04-0
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: liquid **Solubility:** chloroform, ethyl ether, ethanol
Storage: –20°C

1603 **Methyl 17-methyloctadecanoate** **20 mg**
iso-Nonadecanoic methyl ester; iso C19 Methyl ester

$C_{20}H_{40}O_2$ **Mol. Wt.:** 313 **CAS#:** 55124-97-5
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: solid **Solubility:** chloroform, ethyl ether, ethanol
Storage: –20°C

Anteiso-Fatty Acids and Methyl Esters



1615 **12-Methyltetradecanoic acid** **20 mg**
anteiso-Pentadecanoic acid; anteiso C15 Fatty acid

$C_{15}H_{30}O_2$ **Mol. Wt.:** 242 **CAS#:** 5502-94-3
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: solid **Solubility:** chloroform, ethyl ether, ethanol
Storage: –20°C

1612 **Methyl 12-methyltetradecanoate** **20 mg**
anteiso-Pentadecanoic methyl ester; anteiso C15 Methyl ester

$C_{16}H_{32}O_2$ **Mol. Wt.:** 256 **CAS#:** 5129-66-8
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: liquid **Solubility:** chloroform, ethyl ether, ethanol
Storage: –20°C

1613 **Methyl 13-methylpentadecanoate** **20 mg**
anteiso-Palmitic methyl ester; anteiso C16 Methyl ester

$C_{17}H_{34}O_2$ **Mol. Wt.:** 270 **CAS#:** 5487-50-3
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: liquid **Solubility:** chloroform, ethyl ether, ethanol
Storage: –20°C

1616 **14-Methylhexadecanoic acid** **20 mg**
anteiso-Heptadecanoic acid; anteiso C17 Fatty acid

$C_{17}H_{34}O_2$ **Mol. Wt.:** 270 **CAS#:** 5918-29-6
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: solid **Solubility:** chloroform, ethyl ether, ethanol
Storage: –20°C

1614 **Methyl 14-methylhexadecanoate** **20 mg**
anteiso-Heptadecanoic methyl ester; anteiso C17 Methyl ester

$C_{18}H_{36}O_2$ **Mol. Wt.:** 284 **CAS#:** 2490-49-5
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: liquid **Solubility:** chloroform, ethyl ether, ethanol
Storage: –20°C

Other Branched Methyl Fatty Acids

1207 **D,L-2,6-Dimethylheptanoic acid** **50 mg**
2,6-Dimethyl C7:0 fatty acid

$C_9H_{18}O_2$ **Mol. Wt.:** 158 **CAS#:** 60148-94-9
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: liquid **Solubility:** chloroform
Storage: room temperature

1792 **Methyl 10-methylhexadecanoate** **25 mg**
10-Methyl C16:0 methyl ester

$C_{18}H_{36}O_2$ **Mol. Wt.:** 284 **CAS#:** 2490-51-9
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: liquid **Solubility:** chloroform
Storage: room temperature

1195 **Phytanic acid** **25 mg**
3,7,11,15-Tetramethylhexadecanoic acid

$C_{20}H_{40}O_2$ **Mol. Wt.:** 312 **CAS#:** 14721-66-5
Source: semisynthetic **Purity:** 97+% by GC
Appearance: liquid **Solubility:** chloroform, methanol
Storage: –20°C

Cyclopropyl Fatty Acids and Methyl Esters

1822 ***cis*-9,10-Methyleneoctadecanoic acid** **25 mg**
Dihydrosterculic acid

$C_{19}H_{36}O_2$ **Mol. Wt.:** 296 **CAS#:** 4675-61-0
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: solid **Solubility:** chloroform, ethanol, methanol, hexane
Storage: –20°C **Melting Point (°C):** 38-42

1823 **Methyl *cis*-9,10-methyleneoctadecanoate** **25 mg**
Methyl dihydrosterculate

$C_{20}H_{38}O_2$ **Mol. Wt.:** 310 **CAS#:** 3971-54-8
Source: synthetic **Purity:** 98+% by TLC, GC **Identity:** confirmed by MS
Appearance: liquid **Solubility:** chloroform, ethanol, methanol, hexane
Storage: –20°C

1238 **Methyl malvalate** **5 mg**
NEW Methyl 8,9-methylene-heptadec-8Z-enoate; Methyl 2-octyl-1-cyclopropene-1-heptanoate

$C_{19}H_{34}O_2$ **Mol. Wt.:** 294 **CAS#:** 5026-66-4
Source: natural, plant **Purity:** 95+% by TLC, GC
Appearance: liquid **Solubility:** hexane, ethyl ether, chloroform, methanol
Storage: –20°C

1235 **Sterculic acid** **25 mg**
NEW 9,10-Methylene-octadec-9-enoic acid; 2-Octyl-1-cyclopropene-1-octanoic acid

$C_{19}H_{34}O_2$ **Mol. Wt.:** 295 **CAS#:** 738-87-4
Source: natural, plant **Purity:** 98+% by TLC, GC **Identity:** confirmed by MS
Appearance: liquid **Solubility:** chloroform, hexane, ethyl ether, methanol
Storage: –20°C

1236 **Methyl sterculate** **25 mg**
NEW Methyl 9,10-methyleneoctadec-9-enoate; Methyl 2-octyl-1-cyclopropene-1-octanoate

$C_{20}H_{36}O_2$ **Mol. Wt.:** 309 **CAS#:** 3220-60-8
Source: natural, plant **Purity:** 98+% by TLC, GC **Identity:** confirmed by MS
Appearance: liquid **Solubility:** chloroform, hexane, ethyl ether, methanol
Storage: –20°C

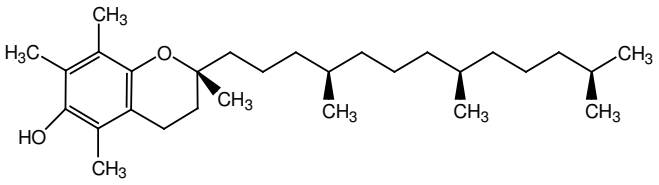
Unusual Fatty Acids and Derivatives

1751 **N-Oleoylethanolamine** **100 mg**
NOE

$C_{20}H_{39}NO_2$ **Mol. Wt.:** 326 **CAS#:** 111-58-0
Source: synthetic **Purity:** 98+% by TLC, GC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, ethanol, methanol, ethyl ether, DMSO
Storage: –20°C **Melting Point (°C):** 63-66
Activity: acid ceramidase inhibitor

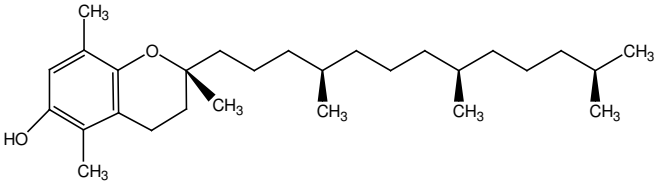
Vitamin E

Tocopherols



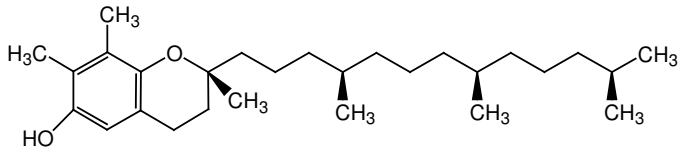
1072 ***rac-alpha*-Tocopherol** **50 mg/ml, 1 ml**
5,7,8-Trimethyltocol

$C_{29}H_{50}O_2$ **Mol. Wt.:** 431 **CAS#:** 10191-41-0
Source: synthetic **Purity:** 95% by TLC, 98% by GC, HPLC
Appearance: liquid **Solubility:** chloroform, ethanol, hexane, methanol
Storage: –20°C **Solvent:** hexane



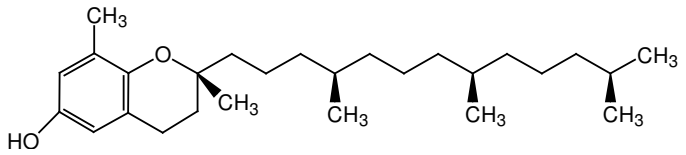
1071 ***rac-beta*-Tocopherol** **50 mg/ml, 1 ml**
5,8-Dimethyltocol

$C_{28}H_{48}O_2$ **Mol. Wt.:** 417 **CAS#:** 148-03-8
Source: synthetic **Purity:** 95% by TLC, 98% by GC, HPLC **Identity:** confirmed by MS
Appearance: liquid **Solubility:** chloroform, ethanol, hexane, methanol
Storage: –20°C **Solvent:** hexane



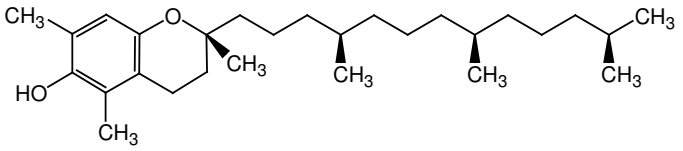
1073 ***rac-gamma*-Tocopherol** **50 mg/ml, 1 ml**
7,8-Dimethyltocol

$C_{28}H_{48}O_2$ **Mol. Wt.:** 417 **CAS#:** 73980-80-0
Source: synthetic **Purity:** 95% by TLC, 96% by GC, HPLC **Identity:** confirmed by MS
Appearance: liquid **Solubility:** chloroform, ethanol, hexane, methanol
Storage: –20°C **Solvent:** hexane



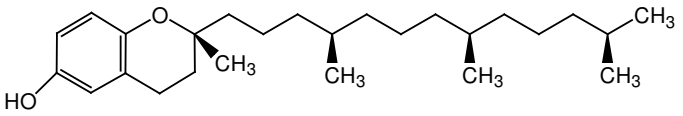
1790 **(+)-*delta*-Tocopherol** **50 mg/ml, 1 ml**
8-Methyltocol

$C_{27}H_{46}O_2$ **Mol. Wt.:** 403 **CAS#:** 119-13-1
Source: natural, plant **Purity:** 95% by TLC, 98% by GC **Identity:** confirmed by MS
Appearance: liquid **Solubility:** chloroform, ethanol, hexane, methanol
Storage: –20°C **Solvent:** hexane



1074 ***rac*-5,7-Dimethyltocol** **50 mg/ml, 1 ml**

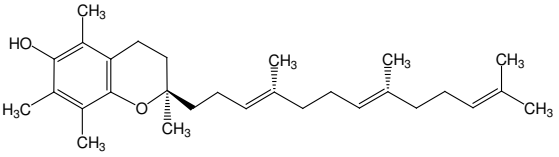
$C_{28}H_{48}O_2$ **Mol. Wt.:** 417 **CAS#:** 493-35-6
Source: synthetic **Purity:** 95% by TLC, 98% by GC, HPLC **Identity:** confirmed by MS
Appearance: liquid **Solubility:** hexane, ethyl ether, chloroform, alcohols
Storage: –20°C **Solvent:** hexane



1797 **Tocol** **50 mg/ml, 1 ml**
rac-Tocol

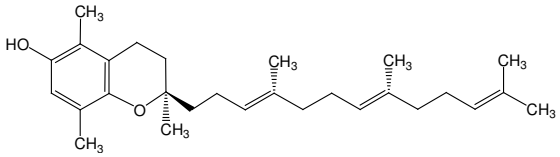
$C_{26}H_{44}O_2$ **Mol. Wt.:** 389 **CAS#:** 119-98-2
Source: synthetic **Purity:** 95% by TLC, 98% by GC, HPLC **Identity:** confirmed by MS
Appearance: liquid **Solubility:** hexane, methanol, ethanol
Storage: –20°C **Solvent:** hexane

Tocotrienols



2109 ***alpha*-Tocotrienol** **25 mg**
3,4-Dihydro-2,5,7,8-tetramethyl-2R-[(3E,7E)-4,8,12-trimethyl-3,7,11-tridecatrienyl)]-2H-1-benzopyran-6-ol

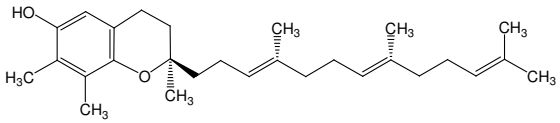
$C_{29}H_{44}O_2$ **Mol. Wt.:** 425 **CAS#:** 58864-81-6
Source: natural, plant **Purity:** 98+% by TLC, GC, HPLC **Identity:** confirmed by MS
Appearance: liquid **Solubility:** hexane, ethyl ether, ethanol
Storage: –20°C



2110 ***beta*-Tocotrienol** **25 mg**

[R-(E,E)]-3,4-Dihydro-2,5,8-trimethyl-2-(4,8,12-trimethyl-3,7,11-tridecatrienyl)-2H-1-benzopyran-6-ol

$C_{28}H_{42}O_2$ **Mol. Wt.:** 411 **CAS#:** 490-23-3
Source: semisynthetic, plant **Purity:** 98+% by TLC, GC, HPLC **Identity:** confirmed by MS
Appearance: liquid **Solubility:** chloroform, ethyl ether, hexane
Storage: –20°C



2111 ***gamma*-Tocotrienol** **25 mg**

[R-(E,E)]-3,4-Dihydro-2,7,8-trimethyl-2-(4,8,12-trimethyl-3,7,11-tridecatrienyl)-2H-1-benzopyran-6-ol

$C_{28}H_{42}O_2$ **Mol. Wt.:** 411 **CAS#:** 14101-61-2
Source: natural, plant **Purity:** 98+% by TLC, GC, HPLC **Identity:** confirmed by MS
Appearance: liquid **Solubility:** chloroform, ethyl ether, hexane
Storage: –20°C

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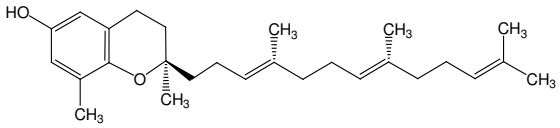


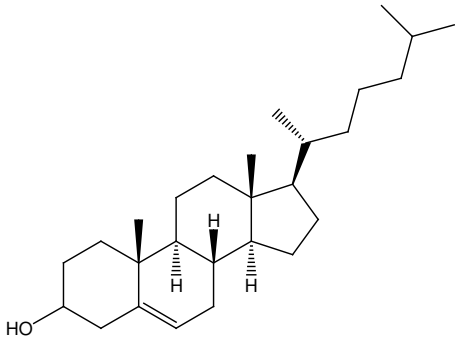
2112 ***delta*-Tocotrienol** **25 mg**

[R-(E,E)]-3,4-Dihydro-2,8-dimethyl-2-(4,8,12-trimethyl-3,7,11-tridecatrienyl)-2H-1-benzopyran-6-ol

$C_{27}H_{40}O_2$ **Mol. Wt.:** 397 **CAS#:** 25612-59-3
Source: natural, plant **Purity:** 98+% by TLC, GC, HPLC **Identity:** confirmed by MS
Appearance: liquid **Solubility:** chloroform, ethyl ether, hexane
Storage: –20°C

Sterols

Cholestane Derivatives



1006 **Cholesterol** **500 mg**

$C_{27}H_{46}O$ **Mol. Wt.:** 387 **CAS#:** 57-88-5
Source: natural, ovine **Purity:** 98+% by TLC, GC
Appearance: solid **Solubility:** chloroform, ethanol
Storage: –20°C **Melting Point (°C):** 147-148

1115 **5-*alpha*-Cholestane** **100 mg**

$C_{27}H_{48}$ **Mol. Wt.:** 373 **CAS#:** 481-21-0
Source: synthetic **Purity:** 98+% by TLC, GC
Appearance: solid **Solubility:** chloroform, ethyl ether, hexane
Storage: –20°C

1116 **Coprostanol** **25 mg**
5-*beta*-Cholestan-3-*beta*-ol

$C_{27}H_{48}O$ **Mol. Wt.:** 389 **CAS#:** 360-68-9
Source: semisynthetic **Purity:** 98+% by TLC, GC
Appearance: solid **Solubility:** chloroform, ethyl ether, warm methanol
Storage: –20°C **Melting Point (°C):** 101-103

Plant Sterols and Steryl Glucosides

1119 **Plant Sterol Mixture** **25 mg/ml, 1 ml**
Sterol mixture, qualitative

Source: natural, plant
Appearance: liquid **Solubility:** chloroform
Storage: –20°C **Solvent:** chloroform
Contains: Brassicasterol (14%), Campesterol (28%), Stigmasterol (12%), *beta*-Sitosterol (43%), in order of elution. Percentages are approximate.

1123 **Plant Sterols Kit** **1 kit**

Source: synthetic or plant
Appearance: liquid/solid **Solubility:** chloroform
Storage: –20°C **Solvent:** chloroform
Contains in individual packages:

Steryl Glucosides	25 mg	Lanosterol (55%)	100 mg
Esterified Steryl Glucosides	10 mg	Stigmasterol	25 mg
Plant Sterol Mixture	25 mg	Ergosterol	25 mg
beta-Sitosterol (55%)	100 mg	Coprostanol	5 mg
Desmosterol (98%)	2 mg	Cholestanol	100 mg

1113 ***beta*-Sitostanol** **50 mg**
Stigmastanol

$C_{29}H_{52}O$ **Mol. Wt.:** 417 **CAS#:** 83-45-4
Source: synthetic **Purity:** 98+% by TLC, 97+% by GC
Appearance: solid **Solubility:** chloroform
Storage: –20°C **Melting Point (°C):** 127-132

1120 **Lanosterol** **500 mg**

$C_{30}H_{50}O$ **Mol. Wt.:** 427 **CAS#:** 79-63-0
Source: synthetic or plant **Purity:** 55% by TLC, GC
Appearance: solid **Solubility:** chloroform
Storage: –20°C

1121 **Stigmasterol** **100 mg**
5,22-Cholestadien-24-*beta*-ethyl-3-*beta*-ol

$C_{29}H_{48}O$ **Mol. Wt.:** 413 **CAS#:** 83-48-7
Source: synthetic **Purity:** 95% by TLC, GC
Appearance: solid **Solubility:** chloroform
Storage: –20°C **Melting Point (°C):** 165-167

1122 **Ergosterol** **100 mg**

$C_{28}H_{44}O$ **Mol. Wt.:** 397 **CAS#:** 57-87-4
Source: synthetic or plant **Purity:** 95% by TLC, GC
Appearance: solid **Solubility:** chloroform
Storage: –20°C **Melting Point (°C):** 156-158

1117 **Steryl Glucosides** **25 mg**
Sterolins

$C_{35}H_{60}O_6$ **Mol. Wt.:** 577 (based on *beta*-sitosteryl glucoside)
Source: natural, plant **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol/DI water, 2:1:0.1 (warm)
Storage: –20°C **Melting Point (°C):** 283-287
Sitosteryl (55.9%), Campesteryl (24.6%), Stigmasteryl (18.1%), *delta*-5-Avenasteryl (1.4%)
Percentages are approximate.
K. Phillips, J. of Food and Lipids, Vol. 12 pp.124-140 (2005)

1118 **Esterified Steryl Glucosides** **10 mg**
Esterified sterolins

$C_{51}H_{90}O_7$ **Mol. Wt.:** 815 (based on *beta*-sitosteryl glucoside palmitate)
Source: natural, plant **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, ethyl ether, pyridine
Storage: –20°C
Sterol, glucose and fatty acid in a molar ratio 1:1:1.
Sitosterol (major), Campesterol, Stigmasterol
See Table III (pg. 106) for typical fatty acid content of products prepared from natural sources.

Standards and Reference Compounds

Food Industry Mixtures

Each methyl ester mixture is carefully prepared by weight.

4210 **KEL-FIM-FAME-5 Mixture** **15.5 mg/ml, 1 ml**

Methyl ester mixture, quantitative

Source: synthetic or plant
Appearance: liquid
Storage: –20°C **Solvent:** heptane

Contains the methyl esters of the following fatty acids (mg/ml in [brackets]):
C8:0 [0.3], C10:0 [0.5], C12:0 [1.0], C13:0 [0.5], C14:0 [0.5], C14:1 [0.3], C15:0 [0.3], C16:0 [2.0], C16:1 [1.0], C17:0 [0.5], C18:0 [1.0], C18:1tr [0.4], C18:1c [3.0], C18:2 [2.0], C20:0 [0.3], C18:3 [1.0], C20:1 [0.3], C22:0 [0.3], C22:1 [0.3]
Listed in order of their elution using a SP-2330 30m x 0.25mm x 0.2µm capillary column.

2009 **FIM-FAME-6 Mixture** **33 mg/ml, 1 ml**

Methyl ester mixture, quantitative

Source: synthetic or plant
Appearance: liquid
Storage: –20°C **Solvent:** heptane

Contains the methyl esters of these fatty acids. Each methyl ester is 3.03% of the mixture except C16:0 which is 6.06%.
C4:0 , C6:0 , C8:0, C10:0 , C11:0, C12:0, C13:0 , C14:0, C14:1(*cis*-9), C15:0, C15:1(*cis*-10), C16:0, C16:1(*cis*-9), C17:0, C17:1(*cis*-10), C18:0, C18:1(*trans*-9), C18:1(*cis*-9), C18:2(all *cis*-9,12), C20:0, C18:3(all *cis*-6,9,12), C20:1(*cis*-11), C18:3(all *cis*-9,12,15), C20:2(all *cis*-11,14), C22:0, C20:3(all *cis*-8,11,14), C22:1(*cis*-13), C20:3(all *cis*-11,14,17), C20:4(all *cis*-5,8,11,14), C22:2(all *cis*-13,16), C24:1(*cis*-15), C22:6(all *cis*-4,7,10,13,16,19)
Listed in order of their elution using a SP-2560 100m x 0.25mm x 0.2µm capillary column.

2010 **FIM-FAME-7 Mixture** **30 mg/ml, 1 ml**

Methyl ester mixture, quantitative

Source: synthetic or plant
Appearance: liquid
Storage: –20°C **Solvent:** methylene chloride

Contains the methyl esters of these fatty acids. (weight percent in [brackets]):
C4:0 [4.0], C6:0 [4.0], C8:0 [4.0], C10:0 [4.0], C11:0 [2.0], C12:0 [4.0], C13:0 [2.0], C14:0 [4.0], C14:1(*cis*-9) [2.0], C15:0 [2.0], C15:1(*cis*-10) [2.0], C16:0 [6.0], C16:1(*cis*-9) [2.0], C17:0 [2.0], C17:1(*cis*-10) [2.0], C18:0 [4.0], C18:1(*trans*-9) [2.0], C18:1(*cis*-9) [4.0], C18:2(all *trans*-9,12) [2.0], C18:2(all *cis*-9,12) [2.0], C20:0 [4.0], C18:3(all *cis*-6,9,12) [2.0], C20:1(*cis*-11) [2.0], C18:3(all *cis*-9,12,15) [2.0], C21:0 [2.0], C20:2(all *cis*-11,14) [2.0], C22:0 [4.0], C20:3 (all *cis*-8,11,14) [2.0], C22:1(*cis*-13) [2.0], C20:3(all cis-11,14,17) [2.0], C20:4(all *cis*-5,8,11,14) [2.0], C23:0 [2.0], C22:2(all *cis*-13,16) [2.0], C24:0 [4.0], C20:5(all *cis*-5,8,11,14,17) [2.0], C24:1(*cis*-15) [2.0], C22:6(all *cis*-4,7,10,13,16,19) [2.0]
Listed in order of their elution using a SP-2560 100m x 0.25mm x 0.2µm capillary column.

2012 **FIM-FAME-8 Mixture** **25 mg/ml, 1 ml**

C18 Quantitative mixture

Source: synthetic or plant
Appearance: liquid
Storage: –20°C **Solvent:** methylene chloride
Contains the methyl esters of these fatty acids (weight percent in [brackets]):
C18:0 [20.0], C18:1 [20.0], C18:2 [20.0], C18:3 [20.0], C18:4 [20.0]
Listed in order of their elution using a SP-2330 30m x 0.25mm x 0.2µm capillary column.

2013 **FIM-FAME-9 Mixture** **25 mg/ml, 1 ml**
C20 Quantitative mixture

Source: synthetic or plant
Appearance: liquid
Storage: –20°C **Solvent:** methylene chloride
Contains the methyl esters of these fatty acids (weight percent in [brackets]):
C20:0 [14.3], C20:1 [14.3], C20:2 [14.3], C20:3 [14.3], C20:4 [14.3], C20:5 [14.3], C22:6 [14.3]
Listed in order of their elution using a SP-2330 100m x 0.25mm x 0.2µm capillary column.

Polyunsaturated Fatty Acid Methyl Ester Mixtures

These are complex qualitative standard mixtures of polyunsaturated fatty acid methyl esters. Because they are extracted from natural materials, relative peak sizes may vary from lot to lot.

1093 **PUFA-1** **100 mg**
Qualitative mixture

Source: natural, fish oil
Appearance: liquid **Solubility:** chloroform, ethanol, hexane, methanol
Storage: –20°C
Contains: C14:0, C16:0, C16:1ω7, C18:1ω9, C18:1ω7, C18:2ω6, C20:1ω9, C18:4ω3, C22:1ω11, C22:1ω9, C20:5ω3, C22:5ω3, C22:6ω3

1081 **PUFA-2** **100 mg**
Qualitative mixture

Source: natural, porcine
Appearance: liquid **Solubility:** alcohols, hexane, chloroform
Storage: –20°C
Contains: C14:0, C16:0, C16:1ω7, C18:0, C18:1ω9, C18:1ω7, C18:2ω6, C18:3ω6, C18:3ω3, C20:1ω9, C20:2ω6, C20:3ω6, C20:4ω6, C20:5ω3, C22:4ω6, C22:5ω3, C22:6ω3

1177 **PUFA-3** **100 mg**
Qualitative mixture

Source: natural, menhaden oil
Appearance: liquid **Solubility:** alcohols, hexane, chloroform
Storage: –20°C
Contains: C14:0, C16:0, C16:1ω7, C16:2ω4, C16:3ω4, C16:4ω1, C18:0, C18:1ω9, C18:1ω7, C18:2ω6, C18:2ω4, C18:3ω4, C18:3ω3, C18:4ω3, C20:1ω9, C20:4ω6, C20:4ω3, C20:5ω3, C21:5ω3, C22:5ω3, C22:6ω3

Carbohydrate Mixtures

1124 **Alditol Acetate Mixture-1** **50 mg/ml, 1 ml**
Quantitative carbohydrate mixture

Source: synthetic
Appearance: liquid
Storage: –20°C **Solvent:** chloroform
Contains: rhamnitol, fucitol, ribitol and arabinitol pentaacetates, 12.5 mg/ml each

1125 **Alditol Acetate Mixture-2** **50 mg/ml, 1 ml**
Quantitative carbohydrate mixture

Source: synthetic
Appearance: liquid
Storage: –20°C **Solvent:** chloroform
Contains: mannitol, galactitol, glucitol and inositol hexaacetates, 12.5 mg/ml each

Other Fatty Acid Methyl Ester Mixtures

1722 **2-Hydroxy Methyl Ester Mixture** **10 mg/ml, 1 ml**

Quantitative mixture

Source: synthetic
Appearance: liquid
Storage: –20°C **Solvent:** chloroform
Contains: 2-OH C14:0, 20.0%; 2-OH C16:0, 20.0%; 2-OH C18:0, 15.0%; 2-OH C20:0, 15.0%; 2-OH C22:0, 10.0%; 2-OH C23:0, 10.0%; 2-OH C24:0, 10.0%

1131 ***Cis-Trans* FAME Isomer Standard Mixture** **5.5 mg/ml, 5 ml**

Source: margarine
Appearance: liquid
Storage: –20°C **Solvent:** methylene chloride

Analysis of positional *cis-trans* fatty acid isomers is ever more important in light of the new food industry rules. These isomers can be resolved on Supelco SP-2560 or an equivalent capillary GC column. Use this specially formulated mixture to ensure proper operation of your column for this tricky separation. Mixture consists of *cis-trans* fatty acid isomers as methyl esters in methylene chloride.

This is a qualitative mixture containing:
C16:0, C18:0, C18:1 *trans* isomers (4 peaks), C18:1 *cis* & *trans* isomers (2 peaks), C18:1 *cis* isomers (4 peaks), C18:2, C20:0, C20:1 and C18:3 (same peak), C22:0
Listed in order of their elution using a SP-2560 100m x 0.25mm x 0.2µm capillary column.

2011 **Long Chain Fatty Acid Methyl Ester Mixture** **25 mg/ml, 1 ml**

C24:0, C26:0, C28:0, C30:0, C32:0 Fatty acid methyl ester mixture

Source: synthetic
Appearance: liquid
Storage: –20°C **Solvent:** methylene chloride
Quantitative mixture contains: C24:0, 20.0%; C26:0, 20.0%; C28:0, 20.0%; C30:0, 20.0%; C32:0, 20.0%

AOCS Animal and Vegetable Oil Reference Mixtures (RM Mixtures)

By studying problems with the quantitative analysis of animal and vegetable oils and fats, the American Oil Chemists' Society has found certain mixtures to be useful as reference standards. The composition of each mixture (see Table I below) is similar to the fatty acid distribution of certain oils. All mixtures are in methyl ester form and ready for GC analysis

Table I. AOCS Oil Reference Mixtures

Each methyl ester mixture is carefully prepared by weight and the composition verified by gas chromatography. The weight percentage of each component is indicated in the Table.

Mix No. Catalog No.	RM-1 1084	RM-2 1085	RM-3 1086	Rapeseed 1083	RM-4 1087	RM-5 1088	RM-6 1089
C8:0 Caprylate						7.0	
C10:0 Caprate						5.0	
C12:0 Laurate						48.0	
C14:0 Myristate			1.0	1.0		15.0	2.0
C16:0 Palmitate	6.0	7.0	4.0	4.0	11.0	7.0	30.0
C16:1 Palmitoleate (*cis*-9)							3.0
C18:0 Stearate	3.0	5.0	3.0	3.0	3.0	3.0	14.0
C18:1 Oleate (*cis*-9)	35.0	18.0	45.0	60.0	80.0	12.0	41.0
C18:2 Linoleate (all *cis*-9,12)	50.0	36.0	15.0	12.0	6.0	3.0	7.0
C18:3 Linolenate (all *cis*-9,12,15)	3.0	34.0	3.0	5.0			3.0
C20:0 Arachidate	3.0		3.0	3.0			
C20:1 Eicosenoate (*cis*-11)				1.0			
C22:0 Behenate			3.0	3.0			
C22:1 Erucate (*cis*-13)			20.0	5.0			
C24:0 Lignocerate			3.0	3.0			

1083 **Rapeseed Oil Reference Mixture** **25 mg/ml, 1 ml**

Source: synthetic or plant
Appearance: liquid
Storage: −20°C **Solvent:** methylene chloride
Suitable standard for low erucic acid oil

1084 **RM-1 Mixture** **50 mg**

Source: synthetic or plant
Appearance: liquid **Solubility:** chloroform, ethyl ether
Storage: −20°C
Suitable standard for corn, cottonseed, soybean, safflower, sesame, poppy seed, walnut kapok, and rice oils

1085 **RM-2 Mixture** **50 mg**

Source: synthetic or plant
Appearance: liquid **Solubility:** chloroform, ethanol, ethyl ether
Storage: −20°C
Suitable standard for linseed, perilla, hempseed, and rubberseed oils

1086 **RM-3 Mixture** **50 mg/ml, 1 ml**

Source: synthetic or plant
Appearance: liquid
Storage: −20°C **Solvent:** methylene chloride
Suitable standards for peanut, rapeseed, and mustard seed oils

1087 **RM-4 Mixture** **50 mg**

Source: synthetic or plant
Appearance: liquid **Solubility:** chloroform, ethyl ether
Storage: −20°C
Suitable standard for olive, teaseed, and neatsfoot oils

1088 **RM-5 Mixture** **50 mg**

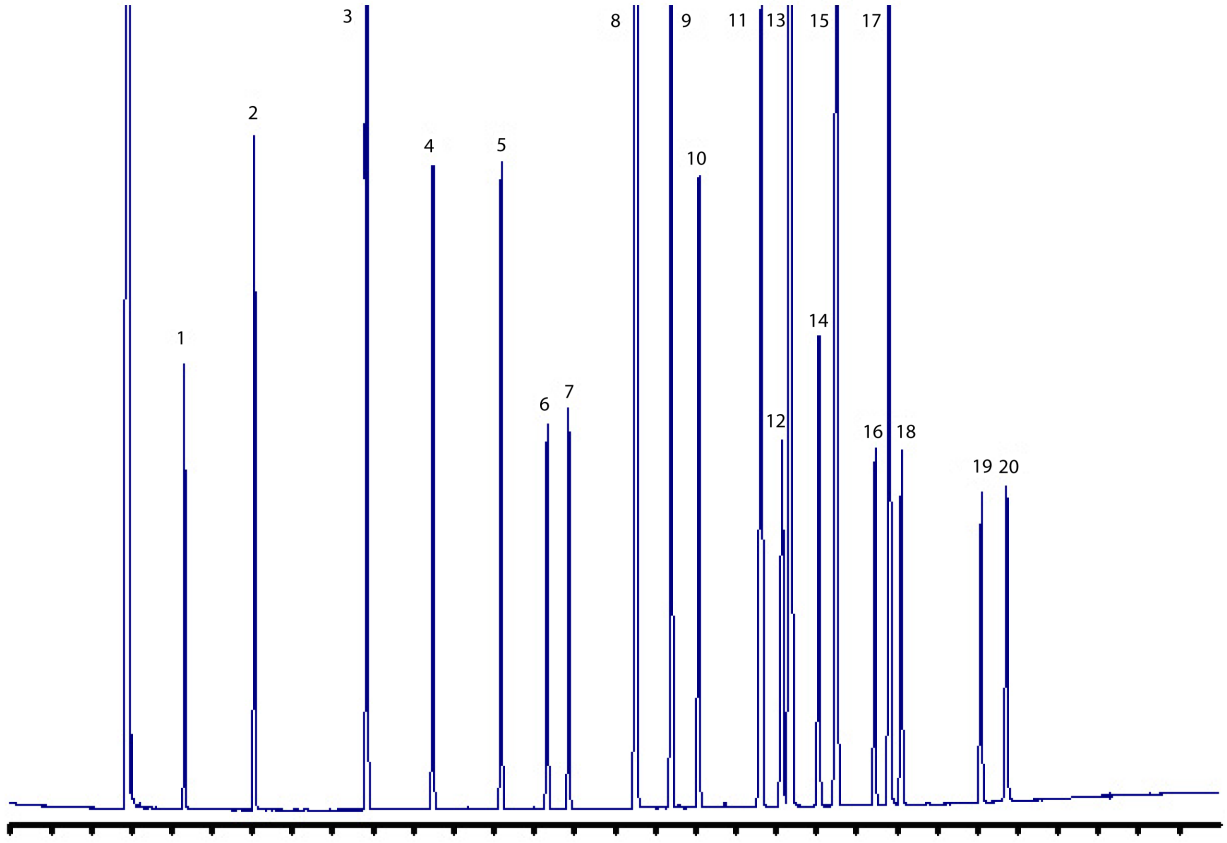
Source: synthetic or plant
Appearance: liquid **Solubility:** chloroform
Storage: −20°C
Suitable standard for coconut, palm kernel, babassu and ouri-ouri oils

1089 **RM-6 Mixture** **50 mg**

Source: synthetic or plant
Appearance: liquid **Solubility:** ethyl ether, methylene chloride
Storage: −20°C
Suitable standard for lard, beef tallow, mutton tallow, and palm oil

Custom Mixtures

Custom fatty acid methyl ester mixtures can be prepared to your specification. Minimum quantity requirements apply to these orders.



Cat# 4210 spiked with 0.4 mg/ml C18:2t ester (methyl linoelaidate) and chromatographed on a Supelco SP 2330 fused silica column.

Peak number	FAME
1	C8:0
2	C10:0
3	C12:0
4	C13:0
5	C14:0
6	C14:1
7	C15:0
8	C16:0
9	C16:1
10	C17:0
11	C18:0
12	C18:1t-9
13	C18:1c-9
14	C18:2t,t-9,12
15	C18:2c,c-9,12
16	C20:0
17	C18:3
18	C20:1
19	C22:0
20	C22:1

GLC Standard Mixtures

GLC-10 through GLC-100 standards are **equal weight measures** of fatty acid methyl esters. They are **quantitative** standards, useful for determining relative **retention times and response factors.**

Table II. Standards for GC Analysis

Each methyl ester mixture is carefully prepared by weight and the composition verified by gas chromatography. The weight percentage of each component is indicated below. All double bonds are *cis*.

Mixture Number / Catalog Number		GLC-10 1095	GLC-30 1097	GLC-40 1098	GLC-50 1099	GLC-60 1100	GLC-70 1101	GLC-80 1102	GLC-90 1103	GLC-100 1104
C8:0	Methyl octanoate (caprylate)		20.0				20.0			
C9:0	Methyl nonanoate (pelargonate)						20.0			
C10:0	Methyl decanoate (caprate)		20.0				20.0			
C11:0	Methyl undecanoate (hendecanoate)						20.0			
C12:0	Methyl dodecanoate (laurate)		20.0				20.0			
C13:0	Methyl tridecanoate							20.0	20.0	
C14:0	Methyl tetradecanoate (myristate)		20.0					20.0		
C15:0	Methyl pentadecanoate							20.0	20.0	
C16:0	Methyl hexadecanoate (palmitate)	20.0	20.0	25.0				20.0		
C16:1	Methyl hexadecenoate (*cis*-9) (palmitoleate)				20.0					
C17:0	Methyl heptadecanoate (margarate)							20.0	20.0	
C18:0	Methyl octadecanoate (stearate)	20.0		25.0						20.0
C18:1	Methyl octadecenoate (*cis*-9) (oleate)	20.0			20.0					
C18:2	Methyl octadecadienoate (all *cis*-9,12) (linoleate)	20.0								
C18:3	Methyl octadecatrienoate (all *cis*-9,12,15) (linolenate)	20.0								
C19:0	Methyl nonadecanoate								20.0	20.0
C20:0	Methyl eicosanoate (arachidate)			25.0		25.0				20.0
C20:1	Methyl eicosenoate (*cis*-11)				20.0	25.0				
C20:2	Methyl eicosadienoate (all *cis*-11,14)					25.0				
C20:3	Methyl eicosatrienoate (all *cis*-11,14,17)					25.0				
C21:0	Methyl heneicosanoate								20.0	20.0
C22:0	Methyl docosanoate (behenate)			25.0						20.0
C22:1	Methyl docosenoate (*cis*-13) (erucate)				20.0					
C24:1	Methyl tetracosenoate (*cis*-15) (nervonate)				20.0					

1095 **GLC-10 Mixture** **50 mg**

Source: synthetic or plant
Appearance: liquid **Solubility:** methylene chloride
Storage: –20°C

1097 **GLC-30 Mixture** **50 mg**

Source: synthetic or plant
Appearance: liquid **Solubility:** methylene chloride
Storage: –20°C

1098 **GLC-40 Mixture** **50 mg/ml, 1 ml**

Source: synthetic or plant
Appearance: liquid
Storage: –20°C **Solvent:** methylene chloride

1099 **GLC-50 Mixture** **50 mg/ml, 1 ml**

Source: synthetic or plant
Appearance: liquid
Storage: –20°C **Solvent:** methylene chloride

1100 **GLC-60 Mixture** **50 mg/ml, 1 ml**

Source: synthetic or plant
Appearance: liquid
Storage: –20°C **Solvent:** methylene chloride

1101 **GLC-70 Mixture** **50 mg**

Source: synthetic or plant
Appearance: liquid **Solubility:** methylene chloride
Storage: –20°C

1102 **GLC-80 Mixture** **50 mg/ml, 1 ml**

Source: synthetic or plant
Appearance: liquid
Storage: –20°C **Solvent:** methylene chloride

1103 **GLC-90 Mixture** **50 mg/ml, 1 ml**

Source: synthetic or plant
Appearance: liquid
Storage: –20°C **Solvent:** methylene chloride

1104 **GLC-100 Mixture** **50 mg/ml, 1 ml**

Source: synthetic or plant
Appearance: liquid
Storage: –20°C **Solvent:** methylene chloride

Water Soluble Fatty Acid Mixtures

1106 **WSFA-2 Mixture** **5 ml**
Water soluble fatty acid qualitative mixture

Appearance: liquid
Storage: room temperature **Solvent:** DI water
Contains: acetic, propionic, isobutyric, n-butyric, isovaleric and n-valeric acids 1mg/ml each

1108 **WSFA-4 Mixture** **5 ml**
Water soluble fatty acid qualitative mixture

Appearance: liquid
Storage: room temperature **Solvent:** DI water
Contains: acetic, propionic, isobutyric, n-butyric, 2-methylbutyric, isovaleric and n-valeric acids 1mg/ml each

Microbiology Standard Mixtures

1105 **GLC-110 Mixture** **10 mg/ml, 1 ml**

Bacterial lipid standard, qualitative mixture

Source: various
Appearance: liquid
Storage: –20°C **Solvent:** chloroform

Contains:

Methyl 12-methyltridecanoate	(iso-C14:0)	Methyl 14-methylpentadecanoate	(iso-C16:0)
Methyl tetradecanoate (myristate)	(C14:0)	Methyl hexadecanoate (palmitate)	(C16:0)
Methyl 12-methyltetradecanoate	(anteiso-C15:0)	Methyl 14-methylhexadecanoate	(anteiso-C17:0)
Methyl pentadecanoate	(C15:0)		

1114 **Bacterial Acid Methyl Esters CP Mixture** **10 mg/ml, 1 ml**

Quantitative mixture

Source: various
Appearance: liquid **Solubility:** hexane, ethanol, methanol
Storage: –20°C **Solvent:** methyl caproate

A quantitative standard. Mixture consists of equal amounts of the compounds listed.

Methyl undecanoate	C11:0	Methyl hexadecenoate (*cis*-9), (palmitoleate)	C16:1(*cis*-9)
Methyl 2-hydroxydecanoate	2-OH C10:0	Methyl hexadecanoate, (palmitate)	C16:0
Methyl dodecanoate, (laurate)	C12:0	Methyl 15-methylhexadecanoate	iso-C17:0
Methyl tridecanoate	C13:0	Methyl *cis*-9,10-methylenehexadecanoate	C17:0 (cyclo-9,10)
Methyl 2-hydroxydodecanoate	2-OH C12:0	Methyl heptadecanoate, (margarate)	C17:0
Methyl 3-hydroxydodecanoate	3-OH C12:0	Methyl 2-hydroxyhexadecanoate	2-OH C16:0
Methyl tetradecanoate, (myristate)	C14:0	Methyl octadecadienoate (all *cis*-9,12), (linoleate)	C18:2 (all *cis*-9,12)
Methyl 13-methyltetradecanoate	iso-C15:0	Methyl octadecenoate (*cis*-9), (oleate)	C18:1(*cis*-9)
Methyl 12-methyltetradecanoate	anteiso-C15:0	Methyl octadecenoate, (*trans*-9), (elaidate)	C18:1 (*trans*-9)
Methyl pentadecanoate	C15:0	Methyl octadecanoate, (stearate)	C18:0
Methyl 2-hydroxytetradecanoate	2-OH C14:0	Methyl *cis*-9,10-methyleneoctadecanoate	C19:0 (cyclo-9,10)
Methyl 3-hydroxytetradecanoate	3-OH C14:0	Methyl nonadecanoate	C19:0
Methyl 14-methylpentadecanoate	iso-C16:0	Methyl eicosanoate, (arachidate)	C20:0

1075 **Volatile Acid Mixture** **100 ml**

Qualitative mixture

Appearance: liquid
Storage: 4-8°C **Solvent:** DI water
Contains: **formic, acetic, propionic, isobutyric, n-butyric, isovaleric, n-valeric, isocaproic, n-caproic, and heptanoic acids**

1077 **Non-Volatile Acid Mixture** **100 ml**

Qualitative mixture

Appearance: liquid
Storage: 4-8°C **Solvent:** DI water
Contains: **pyruvic, lactic, oxalacetic, oxalic, methylmalonic, malonic, fumaric and succinic acids.**

Biochemical Research Standard Mixtures

These mixtures are prepared by precise gravimetric technique. All mixtures contain equal amounts of listed components. A data sheet is supplied with each mixture.

1127 **Polar Lipid Mixture** **25 mg/ml, 1 ml**

TLC standards mixture

Source: natural, egg, ovine
Appearance: liquid
Storage: –20°C **Solvent:** chloroform/methanol, 2:1
Contains: **cholesterol, phosphatidylethanolamine, lecithin, and *lyso*-lecithin.**

1128 **Sphingolipid Mixture** **25 mg/ml, 1 ml**
TLC standards mixture

Source: natural, bovine
Appearance: liquid
Storage: –20°C **Solvent:** chloroform/methanol, 2:1
Contains: **cerebrosides, sulfatides, and sphingomyelin.**

1129 **Non-Polar Lipid Mixture A** **25 mg/ml, 1 ml**
TLC standards mixture

Source: natural, plant, ovine
Appearance: liquid
Storage: –20°C **Solvent:** chloroform
Contains: **cholesteryl palmitate, tripalmitin, palmitic acid, and cholesterol.**

1130 **Non-Polar Lipid Mixture B** **25 mg/ml, 1 ml**
TLC standards mixture

Source: natural, plant, ovine
Appearance: liquid
Storage: –20°C **Solvent:** chloroform
Contains: **cholesteryl oleate, methyl oleate, triolein, oleic acid, and cholesterol.**

Glycosphingolipid Reference Mixtures for TLC and HPLC

These mixtures are qualitative standards prepared from our purified glycosphingolipids.

1065 **Mixed Gangliosides, purified (NH_4^+ salt), bovine** **25 mg**
Mixed Gangliosides

Source: natural, bovine **Purity:** 98+% by TLC
Appearance: solid **Solubility:** chloroform/methanol/DI water, 2:1:0.1; forms micellar solution in water
Storage: –20°C Approximately 98% GM_1, GD_{1a}, GD_{1b} and GT_{1b}, remaining 2% other gangliosides
See Table III (pg. 105) for typical fatty acid content of products prepared from natural sources.

1525 **Mixed Gangliosides, purified (NH_4^+ salt), porcine** **25 mg**

Source: natural, porcine **Purity:** 98+% by TLC
Appearance: solid **Solubility:** chloroform/methanol/DI water, 2:1:0.1; forms micellar solution in water
Storage: –20°C Approximately 98% GM_1, GD_{1a}, GD_{1b} and GT_{1b}, remaining 2% other gangliosides
See Table III (pg. 108) for typical fatty acid content of products prepared from natural sources.

1505 **Neutral Glycosphingolipid Mixture** **1 mg/ml, 1 ml**
Qualitative mixture

Source: natural, bovine and porcine
Appearance: liquid
Storage: –20°C **Solvent:** chloroform/methanol, 2:1
Contains: **cerebrosides, lactosylceramides, ceramide trihexosides, globosides.**

1508 **Monosialoganglioside Mixture** **0.5 mg/ml, 1 ml**

Source: natural, bovine, human
Appearance: liquid
Storage: –20°C **Solvent:** chloroform/methanol/DI water, 2:1:0.1
Contains: GM_3, GM_2, GM_1

1509 **Disialoganglioside Mixture** **0.5 mg/ml, 1 ml**

Source: natural, bovine
Appearance: liquid
Storage: –20°C **Solvent:** chloroform/methanol/DI water, 2:1:0.1
Contains: **GD_3, GD_{1a}, GD_{1b}**

1510 **Lactosylceramide and Sialosyl Derivatives Mixture** **0.5 mg/ml, 1 ml**

Source: natural, bovine
Appearance: liquid
Storage: –20°C **Solvent:** chloroform/methanol/DI water, 2:1:0.1
Contains: LC, GM_3, GD_3

1511 **Gangliotetraosylceramide and Sialosyl Derivatives Mixture** **0.5 mg/ml, 1 ml**

Source: natural, bovine
Appearance: liquid
Storage: –20°C **Solvent:** chloroform/methanol/DI water, 2:1:0.1
Contains: **asialo-GM_1, GM_1, GD_{1a}, GD_{1b}, GT_{1b}**

Labeled Standards

Stable Isotope Labeled Standards

2079 **D-*erythro*-Sphingosine, D9** **1 mg**
15,15,16,16,17,17,18,18,18-D9-2-Amino-octadec-4-ene-1,3-diol

$C_{18}H_{28}D_9NO_2$ **Mol. Wt.:** 309
Source: synthetic **Purity:** 98+% by TLC, GC, HPLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, ethanol, methanol, DMSO
Storage: –20°C

2201 **N-*omega*-CD_3-Octadecanoyl-D-*erythro*-sphingosine** **1 mg**
N-C18:0-CD_3-D-*erythro*-Ceramide; N-Stearoyl-CD_3-D-*erythro*-sphingosine

$C_{36}H_{68}NO_3D_3$ **Mol. Wt.:** 569
Source: synthetic **Purity:** 98+% by TLC, GC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, hot ethanol, DMF
Storage: –20°C

2208 **N-(32-Linoleoyloxy-dotriacontanoyl)-sphingosine-D9** **1 mg**
NEW EOS Ceramide, deuterated; O-acylceramide, deuterated

$C_{68}H_{120}D_9NO_5$ **Mol. Wt.:** 1050
Source: synthetic **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, methanol, DMF
Storage: –20°C

2202 **N-*omega*-CD_3-Octadecanoyl-D-*erythro*-dihydrosphingosine** **1 mg**
N-C18:0-CD_3-D-*erythro*-Dihydroceramide; N-Stearoyl-CD_3-D-*erythro*-sphinganine

$C_{36}H_{70}D_3NO_3$ **Mol. Wt.:** 571
Source: synthetic **Purity:** 98% by TLC, GC, HPLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** hot ethanol, DMF, DMSO, chloroform/methanol, 2:1
Storage: –20°C

2210 **N-*omega*-CD_3-Octadecanoyl-phytosphingosine** **1 mg**
NEW
N-C18:0-CD_3-Phytoceramide; N-Stearoyl-CD_3-phytosphingosine

$C_{36}H_{70}D_3NO_4$ **Mol. Wt.:** 587
Source: semisynthetic, yeast (*Pichia ciferri*) **Purity:** 98+% by TLC, HPLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, DMF, DMSO
Storage: –20°C

2200 **N-1-^{13}C-Hexadecanoyl-D-*erythro*-sphingosylphosphorylcholine** **1 mg**
D-*erythro*-Sphingomyelin with 1-^{13}C-palmitic acid;
N-1-^{13}C-Palmitoyl-sphingosylphosphorylcholine

$C_{38}{}^{13}CH_{79}N_2O_6P$ **Mol. Wt.:** 703
Source: semisynthetic, bovine buttermilk **Purity:** 98+% by TLC
Appearance: solid **Solubility:** chloroform, ethanol, methanol
Storage: –20°C

2206 **N-*omega*-CD_3-Octadecanoyl-D-*erythro*-sphingosine-1-phosphate** **1 mg**
C18:0-CD_3-Ceramide-1-phosphate; N-Stearoyl-CD_3-C1P

$C_{36}H_{69}D_3NO_6P$ **Mol. Wt.:** 649
Source: synthetic **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol/acetic acid, 60:15:25
Storage: –20°C chloroform/methanol/7.5M ammonium hydroxide 80:20:4

1914 **N-Octadecanoyl-D_{35}-psychosine, (perdeuterated, C18:0 fatty acid)** **5 mg**
N-C18:0-D_{35}-Cerebroside, perdeuterated; N-Stearoyl-D_{35}-psychosine, perdeuterated

$C_{42}H_{46}D_{35}NO_8$ **Mol. Wt.:** 763
Source: semisynthetic, bovine **Purity:** 98+%by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, hot ethanol, chloroform/methanol, 2:1
Storage: –20°C Deuterium labeled stearoyl sidechain

2209 **$^{13}C_6$-Glucosylsphingosine** **1 mg**
NEW
1-(*beta*-D-Glucosyl-1,2,3,4,5,6-$^{13}C_6$)-sphingosine; $^{13}C_6$-*lyso*-Glucocerebroside

$C_{18}{}^{13}C_6H_{47}NO_7$ **Mol. Wt.:** 468
Source: synthetic **Purity:** 98+% by TLC, HPLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** ethanol, methanol, chloroform/methanol, 2:1
Storage: –20°C

1533 **N-*omega*-CD_3-Hexadecanoyl-glucopsychosine** **1 mg**
N-C16:0-CD_3-Glucopsychosine; N-C16:0-CD_3-Glucocerebroside;
N-Palmitoyl-CD_3-glucopsychosine

$C_{40}H_{74}D_3NO_8$ **Mol. Wt.:** 703
Source: semisynthetic, bovine buttermilk **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol, 2:1
Storage: –20°C

1536 **N-*omega*-CD_3-Octadecanoyl-sulfatide** **1 mg**
N-C18:0-CD_3-Sulfatide; N-Stearoyl-CD_3-sulfatide

$C_{42}H_{78}D_3NO_{11}S$ **Mol. Wt.:** 811
Source: semisynthetic, bovine **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol/DI water, 2:1:0.1
Storage: –20°C

1534 **N-*omega*-CD_3-Hexadecanoyl-lactosylceramide** **1 mg**

N-C16:0-CD_3-Lactosylceramide; N-Palmitoyl-CD_3-lactosylceramide

$C_{46}H_{84}D_3NO_{13}$ **Mol. Wt.:** 865
Source: semisynthetic, bovine buttermilk **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol/DI water, 5:1:0.1
Storage: –20°C

1537 **N-*omega*-CD_3-Octadecanoyl-ceramide trihexoside** **500 µg**

N-C18:0-CD_3-CTH; N-C18:0-CD_3-Gb_3; N-Octadecanoyl-CD_3-globotriaosylceramide; N-Stearoyl-CD_3-ceramide trihexoside

$C_{54}H_{98}D_3NO_{18}$ **Mol. Wt.:** 1055
Source: semisynthetic, porcine RBC **Purity:** 98+% by TLC, HPLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** DMSO, chloroform/methanol, 2:1
Storage: –20°C

2050 **N-*omega*-CD_3-Octadecanoyl monosialoganglioside GM_1 (NH_4^+ salt)** **500 µg**

N-CD_3-Stearoyl GM_1

$C_{73}H_{128}N_3O_{31}D_3 \bullet NH_3$ **Mol. Wt.:** 1550 + NH_3
Source: semisynthetic, bovine **Purity:** 98% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol/DI water, 2:1:0.1; forms micellar solution in water
Storage: –20°C

2051 **N-*omega*-CD_3-Octadecanoyl monosialoganglioside GM_2 (NH_4^+ salt)** **250 µg**

N-CD_3-Stearoyl GM_2

$C_{67}H_{118}D_3N_3O_{26} \bullet NH_3$ **Mol. Wt.:** 1388 + NH_3
Source: semisynthetic, human Tay-Sachs **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol/DI water, 2:1:0.1; forms micellar solution in water
Storage: –20°C

2052 **N-*omega*-CD_3-Octadecanoyl monosialoganglioside GM_3 (NH_4^+ salt)** **250 µg**

N-CD_3-Stearoyl GM_3

$C_{59}H_{105}D_3N_2O_{21} \bullet NH_3$ **Mol. Wt.:** 1185 + NH_3
Source: semisynthetic, bovine buttermilk **Purity:** 98% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol/DI water, 2:1:0.1; forms micellar solution in water
Storage: –20°C

2054 **N-*omega*-CD_3-Octadecanoyl disialoganglioside GD_3** **500 µg**
NEW

N-CD_3-Stearoyl GD_3

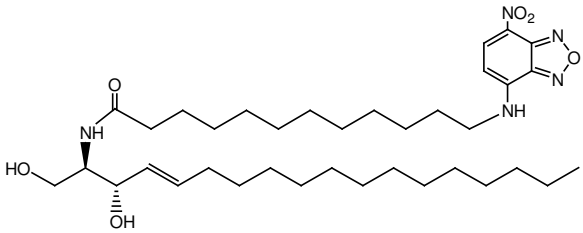
$C_{70}H_{122}D_3N_3O_{29}$ **Mol. Wt.:** 1476
Source: semisynthetic bovine buttermilk **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol, 2:1, water
Storage: –20°C

Fluorescent Standards

Absorption: 460 nm Emission: 535 nm

1841 **N-Hexanoyl-NBD-D-*erythro*-sphingosine** **100 µg**
1841-001 N-C6:0-NBD-Ceramide; N-C6:0-NBD-D-*erythro*-Sphingosine **1 mg**

$C_{30}H_{49}N_5O_6$ **Mol. Wt.:** 576 **CAS#:** 86701-10-2
Source: synthetic **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, ethanol, methanol
Storage: –20°C **Melting Point (°C):** 85-88



1618 **N-Dodecanoyl-NBD-D-*erythro*-sphingosine** **100 µg**
1618-001 N-C12:0-NBD-Ceramide; N-C12:0-NBD-D-*erythro*-Sphingosine **1 mg**

$C_{36}H_{61}N_5O_6$ **Mol. Wt.:** 660 **CAS#:** 202850-01-9
Source: synthetic **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** methanol, chloroform/methanol, 2:1
Storage: –20°C

1857 **N-Hexanoyl-NBD-L-*threo*-sphingosine** **100 µg**
1857-001 N-C6:0-NBD-Ceramide; N-C6:0-NBD-L-*threo*-Sphingosine **1 mg**

$C_{30}H_{49}N_5O_6$ **Mol. Wt.:** 576
Source: synthetic **Purity:** 98+% by TLC
Appearance: solid **Solubility:** chloroform, ethanol, methanol
Storage: –20°C

1620 **N-Dodecanoyl-NBD-L-*threo*-sphingosine** **100 µg**
N-C12:0-NBD-Ceramide; N-C12:0-NBD-L-*threo*-Sphingosine, fluorescent

$C_{36}H_{61}N_5O_6$ **Mol. Wt.:** 660 **CAS#:** 474943-08-3
Source: synthetic **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** methanol, chloroform/methanol, 2:1
Storage: –20°C

1624 **N-Hexanoyl-NBD-L-*threo*-dihydrosphingosine** **100 µg**
N-C6:0-NBD-Dihydroceramide; N-C6:0-NBD-L-*threo*-Dihydrosphingosine

$C_{30}H_{51}N_5O_6$ **Mol. Wt.:** 578
Source: synthetic **Purity:** 98+% by TLC
Appearance: solid **Solubility:** methanol, chloroform/methanol, 2:1
Storage: –20°C

1623 **N-Dodecanoyl-NBD-L-*threo*-dihydrosphingosine** **100 µg**
N-C12:0-NBD-Dihydroceramide; N-C12:0-NBD-L-*threo*-Dihydrosphingosine

$C_{36}H_{63}N_5O_6$ **Mol. Wt.:** 662 **CAS#:** 474943-07-2
Source: synthetic **Purity:** 98+% by TLC
Appearance: solid **Solubility:** methanol, chloroform/methanol, 2:1
Storage: –20°C

1626 **N-Hexanoyl-NBD-D-*erythro*-dihydrosphingosine** **100 µg**
N-C6:0-NBD-Dihydroceramide; N-C6:0-NBD-D-*erythro*-Dihydrosphingosine

$C_{30}H_{51}N_5O_6$ **Mol. Wt.:** 578 **CAS#:** 114301-95-0
Source: synthetic **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** methanol, chloroform/methanol, 2:1
Storage: –20°C

1625 **N-Dodecanoyl-NBD-D-*erythro*-dihydrosphingosine** **100 µg**
N-C12:0-NBD-Dihydroceramide; N-C12:0-NBD-D-*erythro*-Dihydrosphingosine

$C_{36}H_{63}N_5O_6$ **Mol. Wt.:** 662
Source: synthetic **Purity:** 98+% by TLC
Appearance: solid **Solubility:** methanol, chloroform/methanol, 2:1
Storage: –20°C

1628 **N-Hexanoyl-NBD-phytosphingosine** **100 µg**
N-C6:0-NBD-Phytoceramide; N-C6:0-NBD-Phytosphingosine

$C_{30}H_{51}N_5O_7$ **Mol. Wt.:** 594 **CAS#:** 477239-93-3
Source: semisynthetic, bacteria **Purity:** 98+% by TLC
Appearance: solid **Solubility:** methanol, chloroform/methanol, 2:1
Storage: –20°C

1627 **N-Dodecanoyl-NBD-phytosphingosine** **100 µg**
N-C12:0-NBD-Phytoceramide; N-C12:0-NBD-Phytosphingosine

$C_{36}H_{63}N_5O_7$ **Mol. Wt.:** 678 **CAS#:** 388566-94-7
Source: semisynthetic, bacteria **Purity:** 98+% by TLC
Appearance: solid **Solubility:** methanol, chloroform/methanol, 2:1
Storage: –20°C

1912 **N-Hexanoyl-NBD-sphingosylphosphorylcholine** **100 µg**
1912-001 N-C6:0-NBD-Sphingomyelin; N-C6:0-NBD-Sphingosylphosphorylcholine **1 mg**

$C_{35}H_{61}N_6O_9P$ **Mol. Wt.:** 740 **CAS#:** 94885-04-8
Source: semisynthetic, bovine buttermilk **Purity:** 98+% by TLC
Appearance: solid **Solubility:** chloroform, ethanol, methanol
Storage: –20°C Mixture of D-*erythro* and L-*threo* isomers

1619 **N-Dodecanoyl-NBD-sphingosylphosphorylcholine** **100 µg**
1619-001 N-C12:0-NBD-Sphingomyelin; N-C12:0-NBD-Sphingosylphosphorylcholine **1 mg**

$C_{41}H_{73}N_6O_9P$ **Mol. Wt.:** 825 **CAS#:** 254117-01-6
Source: semisynthetic, bovine buttermilk **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** methanol, chloroform/methanol, 2:1
Storage: –20°C Mixture of D-*erythro* and L-*threo* isomers

1621 **N-Hexanoyl-NBD-galactosylceramide** **100 µg**
N-C6:0-NBD-*beta*-D-Galactosylsphingosine; N-C6:0-NBD-Cerebroside;
N-C6:0-NBD-Galactosylceramide, fluorescent; N-(NBD-Aminocaproyl)-D-galactosylsphingosine

$C_{36}H_{59}N_5O_{11}$ **Mol. Wt.:** 738 **CAS#:** 170212-26-7
Source: semisynthetic, bovine **Purity:** 98+% by TLC
Appearance: solid **Solubility:** methanol, chloroform/methanol, 5:1
Storage: –20°C

1633 **N-Dodecanoyl-NBD-galactosylceramide** **100 µg**
1633-001 N-C12:0-NBD-*beta*-D-Galactosylsphingosine; N-C12:0-NBD-Cerebroside **1 mg**

$C_{42}H_{71}N_5O_{11}$ **Mol. Wt.:** 822 **CAS#:** 474942-98-8
Source: semisynthetic, bovine spinal cord **Purity:** 98% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform, DMSO, chloroform/methanol, 2:1
Storage: –20°C

2204 **Lissamine-rhodamine B-dodecanoyl-galactosylceramide** **500 µg**
Sulforhodamine B-C12:0 cerebroside

$C_{63}H_{99}N_4O_{14}S_2$ **Mol. Wt.:** 1201
Source: semisynthetic, bovine **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol 8:2, DMSO, DMF
Storage: –20°C
Absorption: 540 nm **Emission:** 565 nm

1622 **N-Hexanoyl-NBD-glucosylceramide** **100 µg**
1622-001 N-C6:0-NBD-*beta*-D-Glucosylsphingosine; **1 mg**
N-C6:0-NBD-Glucosylceramide, fluorescent

$C_{36}H_{59}N_5O_{11}$ **Mol. Wt.:** 738 **CAS#:** 94885-03-7
Source: semisynthetic, bovine **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** methanol, chloroform/methanol, 5:1
Storage: –20°C

1632 **N-Dodecanoyl-NBD-sulfatide** **100 µg**
1632-001 N-C12:0-NBD-Sulfatide; N-Dodecanoyl-NBD-*lyso*-sulfatide; **1 mg**
N-Dodecanoyl-NBD-sphingosyl-*beta*-D-galactoside-3-sulfate

$C_{42}H_{71}N_5O_{14}S$ **Mol. Wt.:** 901
Source: semisynthetic, bovine **Purity:** 98+% by TLC
Appearance: solid **Solubility:** chloroform/methanol, 2:1
Storage: –20°C

1629 **N-Hexanoyl-NBD-lactosylceramide** **50 µg**
1629-001 N-Hexanoyl-NBD-*beta*-D-lactosylsphingosine; **1 mg**
N-C6:0-NBD-*beta*-D-Lactosylsphingosine; N-C6:0-NBD-Lactosylceramide

$C_{42}H_{69}N_5O_{16}$ **Mol. Wt.:** 900 **CAS#:** 474943-04-9
Source: semisynthetic, bovine buttermilk **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol, 2:1
Storage: –20°C

1630 **N-Dodecanoyl-NBD-lactosylceramide** **50 µg**
1630-001 N-Dodecanoyl-NBD-*beta*-D-lactosylsphingosine; **1 mg**
N-C12:0-NBD-*beta*-D-Lactosylsphingosine; N-C12:0-NBD-Lactosylceramide

$C_{48}H_{81}N_5O_{16}$ **Mol. Wt.:** 984 **CAS#:** 474943-06-1
Source: semisynthetic, bovine buttermilk **Purity:** 98+% by TLC
Appearance: solid **Solubility:** chloroform/methanol, 2:1
Storage: –20°C

1631 **N-Dodecanoyl-NBD-ceramide trihexoside** **100 µg**
1631-001 N-C12:0-NBD-CTH; N-C12:0-NBD-Globotriaosylceramide **1 mg**

$C_{54}H_{91}N_5O_{21}$ **Mol. Wt.:** 1145
Source: semisynthetic, porcine **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** DMSO; hot methanol, chloroform/methanol, 2:1
Storage: –20°C

Biotin Labeled Standards

2081 **N-Hexanoyl-biotin-D-*erythro*-sphingosine** **5 mg**
N-C6:0-biotin-D-*erythro*-Ceramide

$C_{34}H_{62}N_4O_5S$ **Mol. Wt.:** 639
Source: synthetic **Purity:** 98+% by TLC, HPLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol 2:1, DMF
Storage: –20°C

2212 **N-Hexanoyl-biotin-D-*erythro*-dihydrosphingosine** **5 mg**
NEW N-C6:0-Biotin-sphinganine; N-C6:0-Biotin-dihydroceramide

$C_{34}H_{64}N_4O_5S$ **Mol. Wt.:** 641
Source: synthetic **Purity:** 98+% by TLC, HPLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol, 2:1
Storage: –20°C

2211 **N-Hexanoyl-biotin-phytosphingosine** **5 mg**
NEW N-C6:0-biotin-Phytoceramide

$C_{34}H_{64}N_4O_6S$ **Mol. Wt.:** 657
Source: semisynthetic, yeast (*Pichia ciferri*) **Purity:** 98+% by TLC, HPLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol, 2:1; DMF
Storage: –20°C

2203 **N-Hexanoyl-biotin-galactosylceramide** **5 mg**
N-C6:0-biotin-*beta*-D-Galactosylsphingosine; N-C6:0-biotin-Cerebroside

$C_{40}H_{72}N_4O_{10}S$ **Mol. Wt.:** 801
Source: semisynthetic, bovine **Purity:** 98+% by TLC, HPLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol 2:1, methanol, DMF
Storage: –20°C

2085 **N-Hexanoyl-biotin-glucosylceramide** **5 mg**
N-C6:0-biotin-*beta*-D-Glucosylsphingosine; N-C6:0-biotin-Glucosylceramide

$C_{40}H_{72}N_4O_{10}S$ **Mol. Wt.:** 801
Source: semisynthetic, plant **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol 2:1, methanol, DMF
Storage: –20°C

2207 **N-Hexanoyl-biotin-sulfatide** **1 mg**
N-C6:0-biotin-Sulfatide; N-Hexanoyl-biotin-sphingosyl-*beta*-D-galactoside-3-sulfate

$C_{40}H_{72}N_4O_{13}S_2$ **Mol. Wt.:** 881
Source: semisynthetic, bovine **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol/water 2:1:0.1; methanol/water 9:1; DMF
Storage: –20°C

2205 **N-Hexanoyl-biotin-lactosylceramide** **1 mg**
N-C6:0-biotin-*beta*-D-Lactosylceramide

$C_{46}H_{82}N_4O_{15}S$ **Mol. Wt.:** 963
Source: semisynthetic, bovine buttermilk **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol, 9:1, DMSO, DMF
Storage: –20°C

2053 **N-Hexanoyl-biotin-monosialoganglioside GM_1** **500 µg**

Biotin-C6:0-GM_1

$C_{71}H_{122}N_6O_{33}S$ **Mol. Wt.:** 1620
Source: semisynthetic, bovine **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol/DI water, 2:1:0.1
Storage: –20°C

2055 **N-Hexanoyl-biotin-disialoganglioside GD_3** **500 µg**
NEW

Biotin-C6:0-GD_3

$C_{68}H_{116}N_6O_{31}S$ **Mol. Wt.:** 1546
Source: semisynthetic bovine buttermilk **Purity:** 98+% by TLC **Identity:** confirmed by MS
Appearance: solid **Solubility:** chloroform/methanol/DI water, 2:1:0.1
Storage: –20°C

Table III. Typical Fatty Acid Composition of Natural Lipids Made by Matreya LLC
(actual composition may vary according to dietary history and growth condition of the source)

	Lecithin, egg	Phosphatidyl ethanolamine, egg	*lyso*-Lecithin, egg	Phosphatidylserine, bovine	Phosphatidylinositol, plant, wheat germ	Sulfatides, bovine	Cerebrosides, bovine	Sphingomyelin, bovine	Phosphatidic acid, egg	Ceramides (mixture)
Catalog Number	**1044**	**1045**	**1046**	**1047**	**1048**	**1049**	**1050**	**1051**	**1053**	**1056**
Fatty Acids										
C14:0										
C16:0	31	17	72	1	42	trace	trace	4	39	trace
C16:1										
C18:0	16	29	24	42		5	4	40	12	4
C18:1	31	17	3	27	6	trace			34	
C18:2	16	11			47				15	
C18:3					5					
C20:0				1		1	1	3		1
C20:1				4						
C20:4		12		4						
C21:0										
C22:0				1		7	4	13		4
C22:1				1		trace				
C22:6				7						
C23:0							2	2		2
C24:0						18	10	9		10
C24:1						29	15	22		15
C25:0						2	3			9
C25:1						2	1			1
C26:0						1	2			2
C26:1						3	1			1
C27:0						1	2			2
C27:1							2			2
C14:0 2-OH										
C16:0 2-OH										
C18:0 2-OH						5	15			15
C20:0 2-OH						trace	1			1
C22:0 2-OH						3	6			6
C23:0 2-OH							5			5
C24:0 2-OH						10	17			17
C24:1 2-OH						6	6			
C25:0 2-OH						2	3			3
C25:1 2-OH										
C26:0 2-OH										
C26:1 2-OH										
C16 cis 9,10 methylene										
C18 cis 9,10 methylene										
Others	6	14	1	12	0	5	0	7	0	0
Total	100	100	100	100	100	100	100	100	100	100

Typical Fatty Acid Composition of Natural Lipids Made by Matreya LLC (continued)

(actual composition may vary according to dietary history and growth condition of the source)

	Glucocerebrosides, Gaucher's spleen	Monogalactosyldiglyceride (hydrogenated), plant	Digalactosyl Diglyceride (hydrogenated), plant	Monosialo ganglioside GM_1	Disialoganglioside GD_{1a}	Trisialoganglioside GT_{1b}	Gangliotetraosyl ceramide	Mixed Gangliosides, purified, bovine	Cerebroside; Kerasin (top spot)	Ceramide trihexosides
Catalog Number	**1057**	**1058**	**1059**	**1061**	**1062**	**1063**	**1064**	**1065**	**1066**	**1067**
Fatty Acids										
C14:0					1		trace	trace		
C16:0	26	23	9	2	1	1	1	1	trace	3
C16:1										
C18:0	9	77	91	90	89	87	86	86	5	2
C18:1						1	3	3		2
C18:2										
C18:3										
C20:0	5			3	2	4	4	4	1	2
C20:1										
C20:4										
C21:0										
C22:0	26			1	1	1	2	2	9	17
C22:1									trace	
C22:6										
C23:0	5					1	1	1	5	1
C24:0	22					1	1	1	25	29
C24:1	6			1		1	2	2	43	5
C25:0									3	
C25:1									3	
C26:0									2	
C26:1									4	
C27:0										
C27:1										
C14:0 2-OH										
C16:0 2-OH										
C18:0 2-OH										
C20:0 2-OH										
C22:0 2-OH										3
C23:0 2-OH										1
C24:0 2-OH										19
C24:1 2-OH										10
C25:0 2-OH										
C25:1 2-OH										
C26:0 2-OH										
C26:1 2-OH										
C16 cis 9,10 methylene										
C18 cis 9,10 methylene										
Others	1	0	0	3	6	3	0	0	0	6
Total	100	100	100	100	100	100	100	100	100	100

Typical Fatty Acid Composition of Natural Lipids Made by Matreya LLC (continued)

(actual composition may vary according to dietary history and growth condition of the source)

	Globosides, porcine	Lecithin, bovine	Esterified Steryl Glucosides	Cerebroside; Phrenosin (bottom spot)	Phosphatidyl ethanolamine, plant	Ceramides (non-hydroxy)	Ceramides (hydroxy)	Sphingomyelin, porcine RBC	Sphingomyelin, buttermilk
Catalog Number	**1068**	**1070**	**1118**	**1138**	**1301**	**1322**	**1323**	**1328**	**1329**
Fatty Acids									
C14:0		trace							1
C16:0	2	35	34		22			25	14
C16:1		1							
C18:0	2	14	8		3	11		7	3
C18:1		33	8		7				
C18:2			36		60				
C18:3			4		8				
C20:0	2		1			2		3	1
C20:1									
C20:4									
C21:0									
C22:0	20		4			10		9	26
C22:1									
C22:6									
C23:0	2		2			6		1	30
C24:0	33		2			24		22	21
C24:1	5					31		22	3
C25:0						3			
C25:1						3			
C26:0	2					2			
C26:1						3			
C27:0									
C27:1									
C14:0 2-OH									
C16:0 2-OH									
C18:0 2-OH				36			24		
C20:0 2-OH				1			1		
C22:0 2-OH	4			8			8		
C23:0 2-OH				6			6		
C24:0 2-OH	19			25			35		
C24:1 2-OH	9			9			17		
C25:0 2-OH				4			4		
C25:1 2-OH				2					
C26:0 2-OH				2					
C26:1 2-OH				2			2		
C16 cis 9,10 methylene									
C18 cis 9,10 methylene									
Others	0	17	1	5	0	5	3	11	1
Total	100	100	100	100	100	100	100	100	100

Typical Fatty Acid Composition of Natural Lipids Made by Matreya LLC (continued)

(actual composition may vary according to dietary history and growth condition of the source)

	Sphingomyelin, egg	Phosphatidylinositol, plant, soy	Lactosylceramides, porcine RBC	Disialoganglioside GD_{1b}, bovine	Monosialoganglioside GM_2	Monosialoganglioside GM_3	Disialoganglioside GD_3, buttermilk	Lactosylceramides buttermilk	Ceramide trihexosides (top spot)
Catalog Number	**1332**	**1336**	**1500**	**1501**	**1502**	**1503**	**1504**	**1507**	**1513**
Fatty Acids									
C14:0	trace			trace					
C16:0	72	32	14	1	2	6	8	12	1
C16:1									
C18:0	8	7	6	86	82	1	1	1	1
C18:1	3	7	4	3					
C18:2		47							
C18:3		6							
C20:0	2		1	4	7	1	1	1	2
C20:1									
C20:4									
C21:0						1	2		
C22:0	5		9	2	4	23	24	25	22
C22:1									
C22:6									
C23:0	1		1	1	trace	36	35	36	2
C24:0	2		15	1	1	22	21	21	58
C24:1	4		5	2	2	3	3		7
C25:0								1	1
C25:1									
C26:0									5
C26:1									
C27:0									
C27:1									
C14:0 2-OH									
C16:0 2-OH									
C18:0 2-OH			trace						
C20:0 2-OH									
C22:0 2-OH			8						
C23:0 2-OH									
C24:0 2-OH			24						
C24:1 2-OH			13						
C25:0 2-OH									
C25:1 2-OH									
C26:0 2-OH									
C26:1 2-OH									
C16 cis 9,10 methylene									
C18 cis 9,10 methylene									
Others	3	1	0	0	2	7	5	3	1
Total	100	100	100	100	100	100	100	100	100

Typical Fatty Acid Composition of Natural Lipids Made by Matreya LLC (continued)

(actual composition may vary according to dietary history and growth condition of the source)

	Ceramide trihexosides (bottom spot)	Tetrasialoganglioside GQ_{1b}	Glucocerebrosides, buttermilk	Glucocerebrosides, plant	Mixed Gangliosides, purified, porcine	Fucosylated monosialoganglioside GM_1	Disialoganglioside GD_2	Monosialoganglioside GM_4
Catalog Number	**1514**	**1516**	**1521**	**1522**	**1525**	**1526**	**1527**	**1535**
Fatty Acids								
C14:0								
C16:0	3	5	7		1	8	1	4
C16:1		1						
C18:0		80	2		87	2	89	2
C18:1		2						
C18:2		3						
C18:3								
C20:0		4	1		4	13	7	trace
C20:1								trace
C20:4								
C21:0			1					
C22:0	2	2	27		1	43	1	3
C22:1								4
C22:6								
C23:0			36		1	3	1	4
C24:0	3		23		1	26		6
C24:1					2	5	1	4
C25:0			1					
C25:1								
C26:0								
C26:1								
C27:0								
C27:1								
C14:0 2-OH				trace				
C16:0 2-OH				79				
C18:0 2-OH	1			trace				1
C20:0 2-OH	1							3
C22:0 2-OH	11			8				25
C23:0 2-OH	1			1				17
C24:0 2-OH	52			9				18
C24:1 2-OH	25							7
C25:0 2-OH								
C25:1 2-OH								
C26:0 2-OH								
C26:1 2-OH								
C16 cis 9,10 methylene								
C18 cis 9,10 methylene								
Others	1	3	2	3	3			2
Total	100	100	100	100	100	100	100	100

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