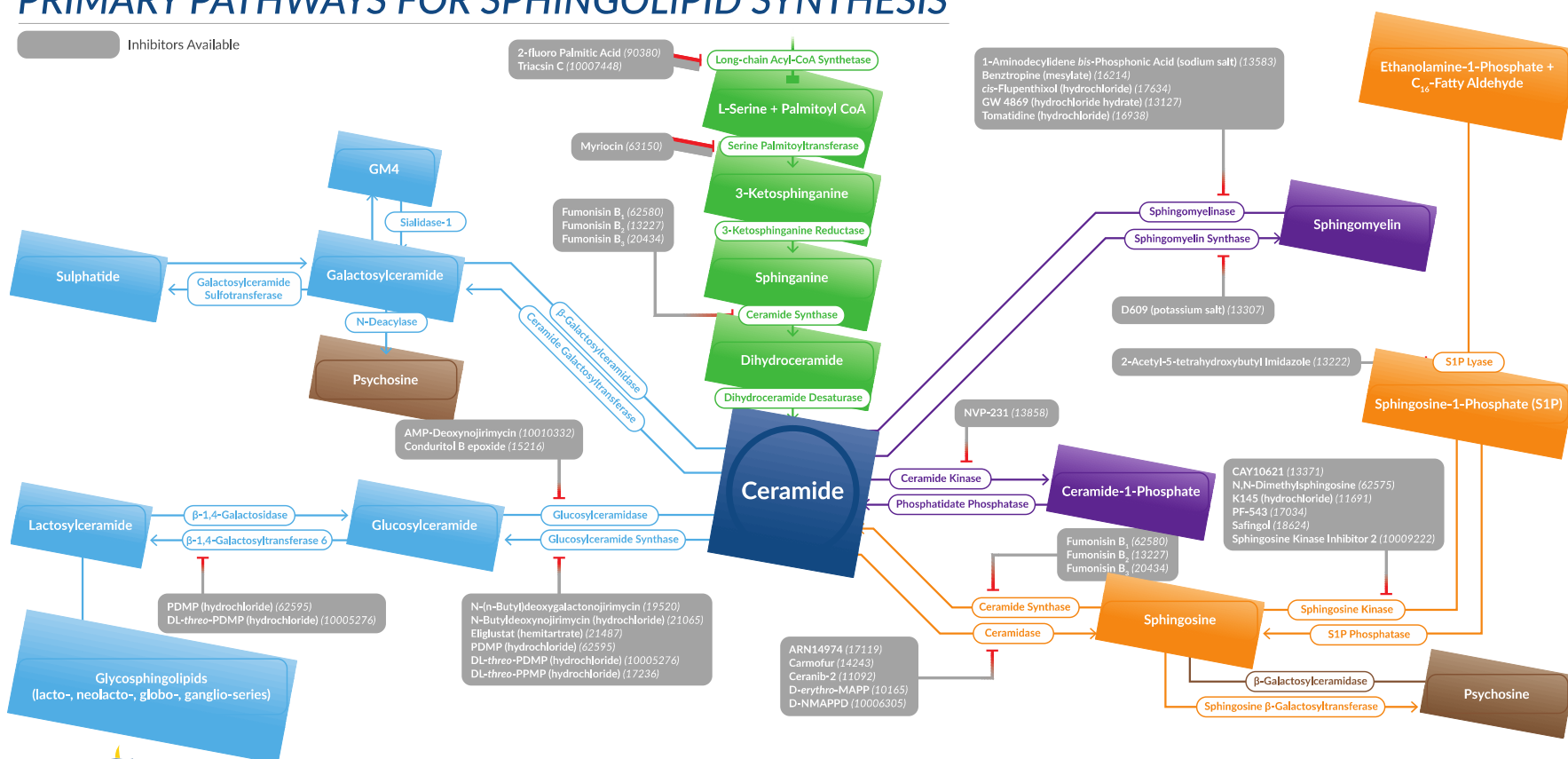


PATHWAYS FOR SPHINGOLIPID SYNTHESIS

Ceramides and other sphingolipids reside in the outer leaflet of the cell membrane where they modulate cell-cell interactions and can regulate differentiation, proliferation, and programmed cell death. Ceramide is the intermediate in the formation of multiple types of sphingolipids: sphingosine, sphingomyelin, ceramide-1-phosphate, glucosylceramide, and galactosylceramide, each of which mediate a wide range of biological activities. To help you study distinct aspects of this important lipid signaling pathway, Cayman carries many different ceramide and sphingolipid standards as well as inhibitors for the various enzymes driving key events in sphingolipid metabolism.



PRIMARY PATHWAYS FOR SPHINGOLIPID SYNTHESIS



Assay, Antibodies, and Proteins

Item No.	Product Name	Summary
10009928	Sphingomyelin Colorimetric Assay Kit	Measure sphingomyelin in plasma and serum
10005260	Serine Palmitoyltransferase Polyclonal Antibody	Host: Rabbit · Applications: IHC, WB
10006822	Sphingosine Kinase 1 Polyclonal Antibody	Host: Rabbit · Applications: ICC, WB
10012201	Sphingosine Kinase 1 Polyclonal FITC Antibody	Host: Rabbit · Applications: FC, IF, WB
10348	Sphingosine Kinase 1 (human recombinant)	Active, N-terminal His-tagged protein from S9 cells
10009237	Sphingosine Kinase 2 (human recombinant)	Full length, N-terminal His-tagged protein from S9 cells

Fluorescent Probes

Item No.	Product Name	Summary
9000753	AV-Ceramide	Fluorescently tagged C-10 ceramide used to probe lipid transport
10007958	C-12 NBD Ceramide	Fluorescent ceramide analog used to measure alkaline and neutral ceramidase activity
10008097	C-12 NBD-dihydro-Ceramide	Fluorescent ceramide analog that contains a saturated bond in the C-4/C-5 position
20948	4-Methylumbelliferyl-β-D-Glucopyranoside	Fluorogenic substrate of β-glucosidase and β-glucocerebrosidase (glucosylceramidase)
16620	4-Methylumbelliferyl-N-acetyl-α-D-Neuraminic Acid (sodium salt)	Fluorogenic substrate used to assay neuraminidase activity

Sphingosine-1-Phosphate Receptor Agonists/Antagonists

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

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