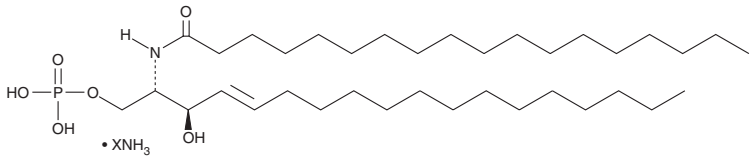
PRODUCT INFORMATION

C18 Ceramide-1-phosphate (d18:1/18:0) (ammonium salt)

Item No. 39228

Formal Name:	N-[(1S,2R,3E)-2-hydroxy-1-[(phosphonooxy)methyl]-3-heptadecen-1-yl]-octadecanamide, ammonium salt
Synonyms:	C18 C1P, C18 Ceramide-1-phosphate, Ceramide-1-phosphate (d18:1/18:0), CerP(d18:1/18:0), N-octadecanoyl-D-*erythro*-Sphingosine-1-phosphate, N-stearoyl-D-*erythro*-Sphingosine-1-phosphate
MF:	$C_{36}H_{72}NO_6P \bullet XNH_3$
FW:	645.9
Purity:	≥95%
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

C18 Ceramide-1-phosphate (d18:1/18:0) (ammonium salt) is supplied as a solid. A stock solution may be made by dissolving the C18 Ceramide-1-phosphate (d18:1/18:0) (ammonium salt) in the solvent of choice, which should be purged with an inert gas. C18 Ceramide-1-phosphate (d18:1/18:0) (ammonium salt) is soluble in the organic solvent chloroform:methanol:water (10:15:1) at a concentration of approximately 1 mg/ml. C18 Ceramide-1-phosphate (d18:1/18:0) (ammonium salt) is slightly soluble in methanol.

Description

C18 Ceramide-1-phosphate (d18:1/18:0) is a long-chain ceramide-1-phosphate that has been found in murine skin.[1] It induces migration of isolated mouse bone marrow-derived multipotent stromal cells and human umbilical vein endothelial cells (HUVECs) when used at concentrations ranging from 0.5 to 5 µM.[2] C18 Ceramide-1-phosphate (d18:1/18:0) levels are increased in CFPAC-1 pancreatic ductal adenocarcinoma cells compared with pancreatic cancer stem cells.[3] Myocardial levels of C18 ceramide-1-phosphate (d18:1/18:0) are increased in Langendorff isolated perfused mouse hearts in an *ex vivo* model of ischemia.[2]

References

1. Yamashita, R., Tabata, Y., Iga, E., *et al.* Analysis of molecular species profiles of ceramide-1-phosphate and sphingomyelin using MALDI-TOF mass spectrometry. *Lipids* **51(2)**, 263-270 (2016).
2. Kim, C., Schneider, G., Abdel-Latif, A., *et al.* Ceramide-1-phosphate regulates migration of multipotent stromal cells and endothelial progenitor cells – implications for tissue regeneration. *Stem Cells* **31(3)**, 500-510 (2013).
3. Kuc, N., Doermann, A., Shirey, C., *et al.* Pancreatic ductal adenocarcinoma cell secreted extracellular vesicles containing ceramide-1-phosphate promote pancreatic cancer stem cell motility. *Biochem. Pharmacol.* **156**, 458-466 (2018).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM