

# PRODUCT INFORMATION



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

Item No. 39228

**Formal Name:** N-[(1S,2R,3E)-2-hydroxy-1-  
[(phosphonoxy)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<sub>36</sub>H<sub>72</sub>NO<sub>6</sub>P • XNH<sub>3</sub>

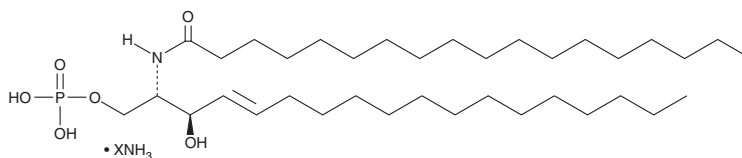
**FW:** 645.9

**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.<sup>1</sup> 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.<sup>2</sup> C18 Ceramide-1-phosphate (d18:1/18:0) levels are increased in CFPAC-1 pancreatic ductal adenocarcinoma cells compared with pancreatic cancer stem cells.<sup>3</sup> 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.<sup>2</sup>

### 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).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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