# **PRODUCT** INFORMATION



## C18 Ceramide-1-phosphate-d<sub>3</sub> (d18:1/18:0-d<sub>3</sub>)

Item No. 24464

CAS Registry No.:	2692624-25-0
Formal Name:	N-[(1S,2R,3E)-2-hydroxy-1-[(phosphonooxy)methyl]-3-
	heptadecen-1-yl]-octadecanamide-18,18,18-d <sub>2</sub>
Synonyms:	C18 C1P-d <sub>2</sub> , C18 Ceramide-1-phosphate-d <sub>3</sub> ,
	Ceramide-1-phosphate (d18:1/18:0-d <sub>2</sub> ),
	CerP(d18:1/18:0-d <sub>2</sub> ), N-octadecanoyl-D-erythro-
	Sphingosine-1-phosphate-d <sub>2</sub> ,
	N-stearoyl-D-erythro-Sphingosine-1-phosphate-d
MF:	$C_{24}H_{40}D_2NO_4P$
FW:	649.0 он он
<b>Chemical Purity:</b>	≥98% (C18 Ceramide-1-phosphate (d18:1/18:0))
Deuterium	
Incorporation:	≥99% deuterated forms (d <sub>1</sub> -d <sub>3</sub> ); ≤1% d <sub>0</sub>
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-d $_3$  (d18:1/18:0-d $_3$ ) is intended for use as an internal standard for the quantification of C18 ceramide-1-phosphate (d18:1/18:0) (Item No. 39228) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

C18 Ceramide-1-phosphate- $d_2$  (d18:1/18:0- $d_2$ ) is supplied as a solid. A stock solution may be made by dissolving the C18 ceramide-1-phosphate- $d_3$  (d18:1/18:0- $d_3$ ) in the solvent of choice, which should be purged with an inert gas. C18 Ceramide-1-phosphate- $d_3$  (d18:1/18:0- $d_3$ ) is soluble in a 60:15:25 solution of chloroform:methanol:acetic acid and an 80:20:4 solution of chloroform:methanol:ammonium hydroxide (7.5 M).

#### 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  $\mu$ M.<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>3</sup>

#### References

- 1. Yamashita, R., Tabata, Y., Iga, E., et al. Lipids 51(2), 263-270 (2016).
- 2. Kuc, N., Doermann, A., Shirey, C., et al. Biochem. Pharmacol. 156, 458-466 (2018).
- 3. Kim, C., Schneider, G., Abdel-Latif, A., et al. Stem Cells 31(3), 500-510 (2013).

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

#### SAFFTY 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.

#### WARRANTY AND LIMITATION OF REMEDY

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