

# PRODUCT INFORMATION



## Sphinganine-1-phosphate (d17:0)

Item No. 22501

CAS Registry No.: 474923-29-0

Formal Name: 2S-amino-1,3R-heptadecanediol,  
1-(dihydrogen phosphate)

Synonyms: C17 Sphinganine-1-phosphate (d17:0),  
D-erythro-Sphinganine-C17-1-phosphate,  
dihydro-D-erythro-Sphingosine-C17-  
1-phosphate

MF:  $C_{17}H_{38}NO_5P$

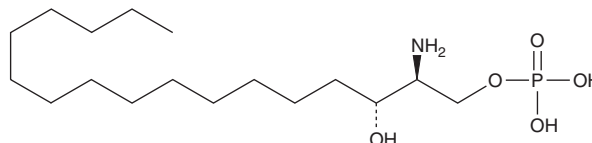
FW: 367.5

Purity:  $\geq 95\%$

Supplied as: A crystalline solid

Storage:  $-20^{\circ}\text{C}$

Stability:  $\geq 4$  years



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

### Laboratory Procedures

Sphinganine-1-phosphate (d17:0) is supplied as a crystalline solid. A stock solution may be made by dissolving the sphinganine-1-phosphate (d17:0) in the solvent of choice. Sphinganine-1-phosphate (d17:0) is soluble in organic solvents such as DMSO and dimethyl formamide, which should be purged with an inert gas. The solubility of sphinganine-1-phosphate (d17:0) in these solvents is approximately 50  $\mu\text{g/ml}$ .

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of sphinganine-1-phosphate (d17:0) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of sphinganine-1-phosphate (d17:0) in PBS, pH 7.2, is approximately 50  $\mu\text{g/ml}$ . We do not recommend storing the aqueous solution for more than one day.

Sphinganine-1-phosphate (d17:0) is also soluble in 0.3 M NaOH at approximately 4 mg/ml, but will precipitate at pH less than 7.5. The reconstituted material will be stable for 24 hours if stored at  $4^{\circ}\text{C}$ .

### Description

Sphinganine-1-phosphate (d17:0) is a sphingolipid analog of sphinganine-1-phosphate (d18:0) (Item No. 22500) and sphingosine-1-phosphate (d18:1) (Item No. 62570) that has a 17-carbon base. Sphinganine-1-phosphate (d17:0) levels are lower in surgical and cadaver trabecular meshwork samples isolated from patients with primary open angle glaucoma compared with control samples.<sup>1</sup>

### Reference

1. Aljohani, A.J., Edwards, G., Guerra, Y., *et al.* Human trabecular meshwork sphingolipid and ceramide profiles and potential latent fungal commensalism. *Invest. Ophthalmol. Vis. Sci.* **55**(6), 3413-3422 (2014).

#### 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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