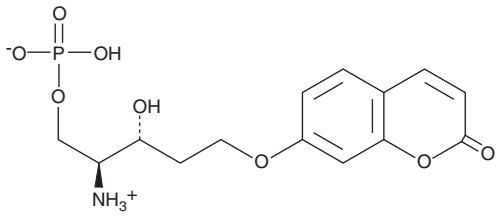
PRODUCT INFORMATION

Sphingosine-1-Phosphate Lyase Fluorogenic Substrate

Item No. 13238

CAS Registry No.:	1166838-84-1
Formal Name:	2S-ammonio-3R-hydroxy-5-((2-oxo-2H-chromen-7-yl)oxy)pentyl hydrogen phosphate
Synonyms:	RBM13, S1P Lyase Fluorogenic Substrate
MF:	$C_{14}H_{18}NO_8P$
FW:	359.3
Purity:	≥98%
UV/Vis.:	λ_{max}: 324 nm
Supplied as:	A crystalline 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

Sphingosine-1-phosphate (S1P) lyase fluorogenic substrate is supplied as a crystalline solid. A stock solution may be made by dissolving the S1P lyase fluorogenic substrate in the solvent of choice, which should be purged with an inert gas. S1P lyase fluorogenic substrate is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of S1P lyase fluorogenic substrate in these solvents is approximately 0.5 mg/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 S1P lyase fluorogenic substrate can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of S1P lyase fluorogenic substrate in PBS (pH 7.2) and 10 Mm NaOH is approximately 10 and 1 mg/ml, respectively. We do not recommend storing the aqueous solution for more than one day.

Description

S1P lyase is a pyridoxal-dependent enzyme that cleaves S1P at the C2-C3 bond to yield ethanolamine phosphate and hexedecanal. S1P lyase fluorogenic substrate is a substrate of S1P lyase, leading to the production of the fluorescent product umbelliferone (7-hydroxycoumarin) under appropriate conditions.[1] This compound is intended to be used to monitor or measure S1P lyase activity.

Reference

1. Bedia, C., Camacho, L., Casas, J., *et al*. Synthesis of a fluorogenic analogue of sphingosine-1-phosphate and its use to determine sphingosine-1-phosphate lyase activity. *Chem. Bio. Chem.* **10(5)**, 820-822 (2009).

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