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Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!

Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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Sphingosine-1-Phosphate, D-Erythro

Signaling molecule
Catalog No. SIH-386

StressMarq Biosciences INC.
Discovery through partnership | Excellence through quality

Overview

Product Name

Sphingosine-1-phosphate, D-erythro

Description

Signaling molecule

Purity

>98%

CAS No.

26993-30-6

Molecular Formula

C18H38NO5P

Molecular Weight

379.5

Properties

Storage Temperature

-20°C

Shipping Temperature

Shipped Ambient

Product Type

Second Messenger

Solubility

Sparingly soluble in 1:1 ethanol:water. Addition of small amounts of acetic acid may help dissolve this product. Soluble in warm methanol.

Source

Synthetic

Appearance

White solid

SMILES

[C@@H](N)([C@H](O)C=CCCCCCCCCCCCCC)CO[P](=O)(O)O

InChI

InChI=1S/C18H38NO5P/c1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-18(20)17(19)16-24-25(21,22)23/h14-15,17-18,20H,2-13,16,19H2,1H3,(H2,21,22,23)/b15-14+/t17-,18+/m0/s1

InChIKey

DUYSYHSSBDVJSM-KRWOKUGFSA-N

Safety Phrases

Classification: Caution. Substance not yet fully tested.
Safety Phrases:
S22 - Do not breathe dust
S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection
S24/25 - Avoid contact with skin and eyes
Hazard Phrases:
H315 - Causes skin irritation.
H319 - Causes serious eye irritation.
H335 - May cause respiratory irritation.
Precautionary Phrases:
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P321 Specific treatment (see on this label).
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations

Cite This Product

Sphingosine-1-phosphate, D-erythro (StressMarq Biosciences Inc., Victoria BC CANADA, Catalog # SIH-386)

Biological Description

Alternative Names

[(E,2S,3R)-2-Amino-3-hydroxyoctadec-4-enyl] dihydrogen phosphate

Research Areas

Cell Signaling

PubChem ID

5283560

Scientific Background

D-erythro-Sphingosine-1-phosphate (S1P) is a polar sphingolipid metabolite which regulates diverse cellular responses including cell growth, survival and migration. S1P was reported to stimulate DNA synthesis and cell division in quiescent cultures of Swiss 3T3 fibroblasts and to trigger the dual signal transduction pathways of calcium mobilization and PC-PLD (phospholipase D) activation. S1P serves as a second messenger for intracellular calcium mobilization in U-937 cells (sc-2239) and decreases cellular cAMP. Recent studies show that S1P is a G-protein-coupled receptor (GPCR) ligand for the EDG-1 family, including EDG-1, -3, -5, -6 and -8. This bioactive lipid mediator has been shown to stimulate the ERK pathway and to also counteract the ceramide-induced activation of stress-activated protein kinase (SAPK/JNK). Researchers have also found that S1P is a strong inhibitor of cell motility and phagokinesis in B16 melanoma cells. Additionally, it induces rapid and transient tyrosine phosphorylation of epidermal growth factor receptor (EGFR) and c-Met in gastric cancer cells. S1P has also been known as a tumor-promoting lipid. Suggested to be an activator of GPR3, GPR6, and GPR12. D-erythro-Sphingosine-1-phosphate is an activator of EDG-1, EDG-3, EDG-2, EDG-4 and EDG-5.¬

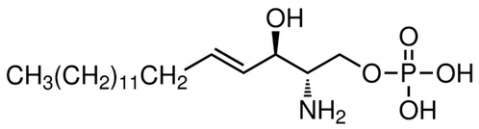
References

1. Van Veldhoven P.P., et al. (1989). J. Lipid Res. 30(4): 611-6.
2. Desai N.N., et al. (1992). J. Biol. Chem. 267(32): 23122-8.
3. Sadahira Y., et al. (1992). Proc. Natl. Acad. Sci. U.S.A. 89(20): 9686-90.
4. Olivera A. and Spiegel, S. (1993). Nature. 365(6446): 557-60.

5. Mattie M., et al. (1994). J. Biol. Chem. 269(5): 3181-8.
6. Wu J., et al. (1995). J. Biol. Chem. 270(19): 11484-8.
7. Choi O.H., et al. (1996). Nature. 380(6575): 634-6.
8. Cuvillier O., et al. (1996). Nature. 381(6585): 800-3.
9. Spiegel S., et al. (2000). Biochim. Biophys. Acta. 1484(2-3): 107-16.
10. Spiegel S. and Milstien, S. (2000). FEBS Lett. 476(1-2): 55-57.
11. Shida, D., et al. (2004). FEBS Lett. 577(3): 333-8.
12. Watterson, K.R., et al. (2005). Cell. Signal. 17(3): 289-98.

Product Images

Chemical structure of Sphingosine-1-phosphate, D-erythro (SIH-386), a Endogenous signaling molecule. CAS #: 26993-30-6. Molecular Formula: C18H38NO5P. Molecular Weight: 379.5 g/mol.



Product Citations (0)

Currently there are no citations for this product.

Reviews

There are no reviews yet.