

## VPC23019 (S1P<sub>1/3</sub> Antagonist)

Catalog number: B-0061

Molecular Formula: C<sub>17</sub>H<sub>29</sub>N<sub>2</sub>O<sub>5</sub>P

MW: 372.18

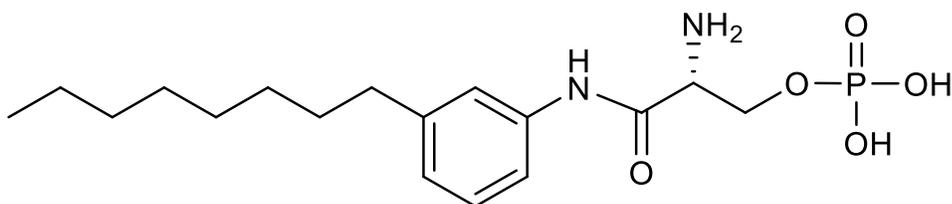
CAS: 449173-19-7

Solubility: CH<sub>3</sub>OH, DMSO (0.25 mg/mL)

Storage and Handling: Store dry at -20 °C. Stock solutions should be stored frozen (-20 °C or below).

Background: Sphingosine-1-phosphate (S1P) is a versatile signaling molecule, which is produced by phosphorylation of sphingosine by two distinct sphingosine kinases, SphK1 and SphK2. S1P binds to five G-protein coupled receptors designated S1P<sub>1-5</sub> leading to cell proliferation, motility, survival, and has a role in regulation cell shape and Ca<sup>2+</sup> homeostasis. VPC23019, an analog of FTY720 (Fingolimod, Gilenya), is a potent antagonist of the S1P<sub>1</sub> & S1P<sub>3</sub> receptors. VPC23019 will inhibit the migration of various types of cancer cells.

References: 1) M. D. Davis, J. J. Clemens, T. L. Macdonald, et al. "Sphingosine 1-phosphate analogs as receptor antagonists." *The Journal of Biological Chemistry*, 280 (2005), 9833-9841. 2) R.J. Watters, H-G. Wang, et al. "Targeting Sphingosine-1-Phosphate Receptors in Cancer" *Anticancer Agents Med. Chem.*, 11 (2011), 810-817.



Hazardous Properties and Cautions: The toxicological and pharmacological properties of this compound are not fully known. For further information see the MSDS on request. This product is manufactured and shipped only in small quantities, intended for research and development in a laboratory utilizing prudent procedures for handling chemicals of unknown toxicity, under the supervision of persons technically qualified to evaluate potential risks and authorized to enforce appropriate health and safety measures. As with all research chemicals, precautions should be taken to avoid unnecessary exposures or risks.

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