

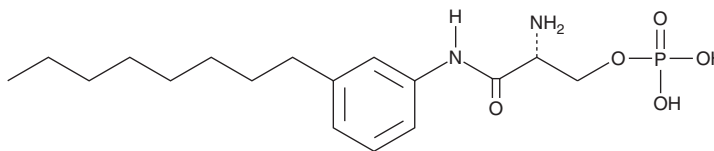
PRODUCT INFORMATION



VPC 23019

Item No. 13240

CAS Registry No.: 449173-19-7
Formal Name: (R)-2-amino-3-((3-octylphenyl)amino)-3-oxopropyl dihydrogen phosphate
MF: C₁₇H₂₉N₂O₅P
FW: 372.4
Purity: ≥95%
UV/Vis.: λ_{max}: 245 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

VPC 23019 is supplied as a crystalline solid. A stock solution may be made by dissolving the VPC 23019 in the solvent of choice, which should be purged with an inert gas. VPC 23019 is soluble in the organic solvent DMSO at a concentration of approximately 0.25 mg/ml.

Description

Sphingosine-1-phosphate (S1P; Item No. 62570) is a bioactive lipid that exhibits a broad spectrum of biological activities including cell proliferation, survival, migration, cytoskeletal organization, and morphogenesis.¹⁻³ It exerts its activity by binding to five distinct G protein-coupled receptors, S1P₁/EDG-1, S1P₂/EDG-5, S1P₃/EDG-3, S1P₄/EDG-6, and S1P₅/EDG-8.^{1,2} VPC 23019 is an aryl amide-containing S1P analog that acts as a competitive antagonist at both S1P₁ and S1P₃ receptors (pK_is = 7.86 and 5.93, respectively).⁴ It can inhibit S1P-induced migration of thyroid cancer cells, ovarian cancer cells, and neural stem cells.⁵

References

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2. Ishii, I., Fukushima, N., Ye, X., et al. Lysophospholipid receptors: Signaling and biology. *Annu. Rev. Biochem.* **73**, 321-354 (2004).
3. Kluk, M.J., and Hla, T. Signaling of sphingosine-1-phosphate via the S1P/EDG-family of G-protein-coupled receptors. *Biochim. Biophys. Acta* **1582(1-3)**, 72-80 (2002).
4. Davis, M.D., Clemens, J.J., Macdonald, T.L., et al. Sphingosine 1-phosphate analogs as receptor antagonists. *J. Biol. Chem.* **280(11)**, 9833-9841 (2005).
5. Takabe, K., Paugh, S.W., Milstien, S., et al. "Inside-out" signaling of sphingosine-1-phosphate: Therapeutic targets. *Pharmacol. Rev.* **60(2)**, 181-195 (2008).

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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