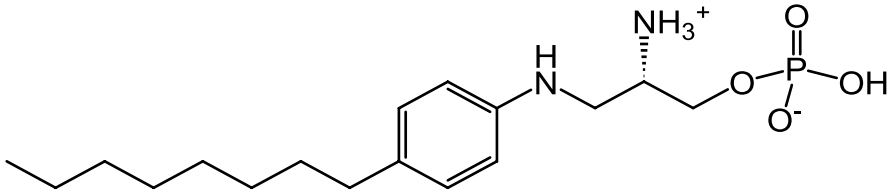
Technical Data Sheet

(S)-Phosphoric acid mono-[2-amino-3-(4-octyl-phenylamino)-propyl] ester (VPC 24191)

Catalog Number	857365	**Physical state**	Powder
Purity	> 99%	**Transition temp.**	No data
CAS	799268-83-0	**CMC**	No data
Synonyms	$S1P_1/S1P_3$ competitive agonist; VPC 24191	**pK_a**	No data
Molec. Formula	$C_{17}H_{31}N_2O_4P$	**TLC mobile phase**	C:M:W*, 65:35:8, v/v
MW	358.413	**Exact Mass**	358.202
Percent composition	C 56.97% H 8.72% N 7.82% O 17.86% P 8.64%		
Stability	Store in <-20°C freezer for up to 6 months		
Solubility	Dissolve to 20mM in DMSO/1N HCl (95:5 v/v). Dilute (1:20) immediately into 3% aqueous fatty acid free BSA. Final stock is 1mM lipid, 95 parts BSA, 5 parts acidified DMSO. Aliquot and store at < -20°C; avoid freeze/thaw		
Web link	**857365**		

*chloroform:methanol:water



Description:

Sphingosine-1-phosphate (S1P) is a lysophospholipid mediator that evokes a variety of cellular responses by stimulation of five members of the endothelial cell differentiation gene receptor family. The endothelial cell differentiation gene receptors are G-protein coupled receptors that, upon stimulation, propagate second messenger signals via activation of heterotrimeric G-protein subunits and dimers. Ultimately, this S1P-driven signaling results in cell survival, increased cell migration, and, often, mitogenesis. (Davis *et al*, 2005).

VPC 24191 is a competitive agonist at the $S1P_1$ and $S1P_3$ receptors.

How to use:

Please use the following web links for **TLC** or **liposome preparation**

References:

• Skoura A, Hla T (2009) Lysophospholipid receptors in vertebrate development, physiology, and pathology. J Lipid Res. 2009 Apr;50 Suppl:S293-8
• Gardell SE, Dubin AE, Chun J (2006) Emerging medicinal roles for lysophospholipid signaling. Trends Molec Med 12(2): 65-75
• Davis MD *et al* (2005) Spingosine-1-phosphate analogs as receptor antagonists. J Biol Chem 280(11): 9833-9841
• Santos WL *et al* (2004) Synthesis and biological evaluation of phosphonic and thiophosphoric acid derivatives of lysophosphatidic acid. Bioorg Med Chem Lett 14:3473-3476.

Related products: Receptor Agonist/Antagonist

MSDS: Available at www.avantilipids.com for Product Number 857365

Avanti Polar Lipids, Inc., 700 Industrial Park Drive, Alabaster, AL 35007-9105, U.S.A.
Phone •(800) 227-0651 •(205) 663-2494 •Fax (800) 229-1004 •(205) 663-0756
Email •orders@avantilipids.com •Technical Questions: technical@avantilipids.com
•Inquiries: info@avantilipids.com •Analytical: analytical@avantilipids.com

Avanti® Polar Lipids, Inc.