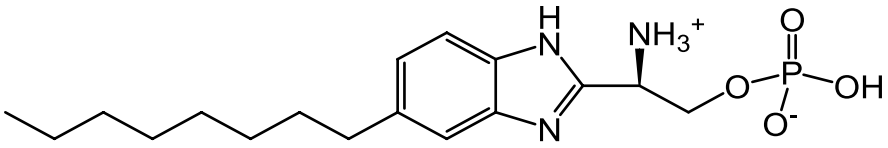
Technical Data Sheet

(R)-Phosphoric acid mono-[2-amino-2-(6-octyl-1H-benzoimiazol-2-yl) ethyl] ester (VPC 23153)

Catalog Number	857367	**Physical state**	Powder
Purity	> 99%	**Transition temp.**	No data
CAS	787582-98-3	**CMC**	No data
Synonyms	$S1P_4$ competitive agonist; VPC 23153	**pK_a**	No data
Molec. Formula	$C_{17}H_{28}N_3O_4P$	**TLC mobile phase**	C:M:W*, 65:35:8, v/v
MW	369.396	**Exact Mass**	369.182
Percent composition	C 52.27% H 7.64% N 11.38% O 17.32% P 8.38%		
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	857367		

*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 23153 is a competitive agonist at the $S1P_4$ receptor.

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
• Clemens, J.J., Davis, M.D., Lynch, K.R., Macdonald, T.L. (2004) Synthesis of benzimidazole based analogues of sphingosine-1-phosphate: discovery of potent, subtype-selective S1P4 receptor agonists. Bioorg Med Chem Lett 14:4903-6.

Related products: Receptor Agonist/Antagonist

MSDS: Available at www.avantilipids.com for Product Number 857367

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