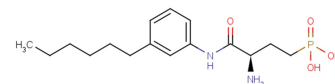


W146

## Chemical Properties

CAS No.:	909725-61-7
Formula:	C <sub>16</sub> H <sub>27</sub> N <sub>2</sub> O <sub>4</sub> P
Molecular Weight:	342.37
Appearance:	N/A
Storage:	0-4°C for short term (days to weeks), or -20°C for long term (months).



## Biological Description

Description	W146 is a selective sphingosine-1-phosphate receptor 1 (S1PR1) antagonist (EC50: 398 nM).
Targets(IC <sub>50</sub> )	S1PR1: (EC50)398 nM
In vitro	W146 is an antagonist of S1PR1 (K <sub>i</sub> : 70-80 nM) [1]. The S1P attenuated TUNEL labeling index of EPCs is significantly increased by pretreatment with W146 compared with the S1P treated group. Furthermore, pretreatment with W146 significantly increases activated cleaved caspase-3 levels. The reduced EPCs apoptosis induced by S1P is completely abolished after treatment with W146 [2].
In vivo	In mice, Injections of W146, W140, JTE013, or Cay10444 do not alter the basal WBC count. when mice are pretreated with W146, it is found that a significant increase in KSL-HSPC mobilization, compared to that in mice pretreated with dextran followed by AMD3100 administration. Moreover, pre-treatment of W146 shows an approximately 8-fold increase of KSL-HSPC mobilization, measured by the CFU-G/M colony-forming assays, compared to that in mice treated with AMD3100 alone [3].

## Solubility Information

Solubility	< 1 mg/ml refers to the product slightly soluble or insoluble
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### Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.921 mL	14.604 mL	29.208 mL
5 mM	0.584 mL	2.921 mL	5.842 mL
10 mM	0.292 mL	1.46 mL	2.921 mL
50 mM	0.058 mL	0.292 mL	0.584 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

Reference

1. M Germana Sanna, et al. Enhancement of capillary leakage and restoration of lymphocyte egress by a chiral S1P1 antagonist in vivo. Nat Chem Biol. 2006 Aug;2(8):434-41. Epub 2006 Jul 9.
2. Hang Wang, et al. Sphingosine-1-phosphate promotes the proliferation and attenuates apoptosis of Endothelial progenitor cells via S1PR1/S1PR3/PI3K/Akt pathway. Cell Biol Int. 2018 May 23.
3. Jingjing Liu, et al. 3-amino-4-(3-hexylphenylamino)-4-oxobutyl phosphonic acid (W146), a Selective Antagonist of Sphingosine-1-phosphate Receptor Subtype 1, Enhances AMD3100-stimulated Mobilization of Hematopoietic Stem Progenitor Cells in Animals. J Biochem Pharmacol Res. 2013 Dec; 1(4): 197–203.

Inhibitors · Natural Compounds · Compound Libraries

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