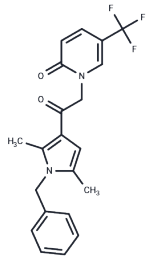
Data Sheet (Cat.No.T27107)

TargetMol

CYM-5478

Chemical Properties



CAS No. : 870762-83-7

Formula: C21H19F3N2O2

Molecular Weight: 388.38

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	CYM-5478 is a highly selective S1P2 agonist with an EC50 value of 119 nM in the TGF-α detachment test and can reduce the toxicity of cisplatin to neurogenic cell lines.
Targets(IC50)	S1P Receptor
In vitro	CYM-5478 (1, 10, 100, 1000, 10000 nM) induces a statistically significant increase in the viability of C6 cells in a dose dependent manner at concentrations above 100 nM under nutrient-deprivation stress produced by serum-starvation. This effect was absent in the presence of 10% fetal bovine serum[1]. CYM-5478 (10 μM) causes significantly attenuated the increase of ROS in C6 cells exposed to Cisplatin (20 μM; for 24 hours)[1]. CYM-5478 (20 μM) protects neural cells but not breast cancer cells against Cisplatin toxicity (C6 glioma cells: EC50=4.54 μM; GT1-7: EC50=17 μM; SK-N-BE2: EC50=7.44 μM; CLU188: EC50=5.54 μM)[2].
In vivo	CYM-5478 (1 mg/kg/day; ip) protects against Cisplatin-mediated (3 mg/kg; i.p.; once a week for 3 week) ototoxicity in rats[2]. CYM-5478 (20 μM) provides near-complete protection against cisplatin-induced loss of viability in hair cells within the zebrafish ototoxicity model [2].

Solubility Information

Solubility	DMSO: 80 mg/mL (205.98 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.5748 mL	12.874 mL	25.748 mL
5 mM	0.515 mL	2.5748 mL	5.1496 mL
10 mM	0.2575 mL	1.2874 mL	2.5748 mL
50 mM	0.0515 mL	0.2575 mL	0.515 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Herr DR, et al. Sphingosine 1-phosphate receptor 2 (S1P2) attenuates reactive oxygen species formation and inhibits cell death: implications for otoprotective therapy. Sci Rep. 2016;6:24541.
Wang W, et al. Sphingosine 1-Phosphate Receptor 2 Induces Otoprotective Responses to Cisplatin Treatment. Cancers (Basel). 2020;12(1):211.