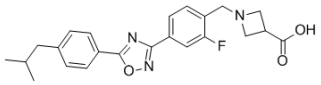
S1p receptor agonist 1

Cat. No.:	HY-101265
CAS No.:	1514888-56-2
Molecular Formula:	$C_{23}H_{24}FN_3O_3$
Molecular Weight:	409.45
Target:	LPL Receptor
Pathway:	GPCR/G Protein
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 6.8 mg/mL (16.61 mM; Need ultrasonic and warming)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.4423 mL	12.2115 mL	24.4230 mL
5 mM	0.4885 mL	2.4423 mL	4.8846 mL
10 mM	0.2442 mL	1.2212 mL	2.4423 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

S1p receptor agonist 1 is a potent and orally active S1P receptor agonist, exhibits an activity of inducing S1P1 internalization (EC_{50}=9.83 nM). S1p receptor agonist 1 has the potential for the study of arthritis and EAE (experimental autoimmune encephalitis). S1p receptor agonist 1 is extracted from patent WO2015039587A1, Compound 2[1].

IC_{50} & Target

EC50: 9.83 nM (S1P1 internalization)[1]

In Vivo

S1p receptor agonist 1 (oral administration; 0.01 mg/kg-1 mg/kg) at all dose is active, and only a dose of 0.01 mg/kg is required to observe a decrease in the number of peripheral blood lymphocytes by more than 50% and a decrease in the 1 mg/kg dose. Besides, this compound is lymphocyte-specific, which dose not significantly alter the number of peripheral monocytes and other white blood cells in SD rats[1].

S1p receptor agonist 1 (oral administration; 3 mg/kg; 12 days) is has been proved to block lymphocyte efflux. In the development of type II collagen-induced arthritis in rat model, compound 2 is effective in inhibiting the development of joint swelling in arthritis and joint structure destruction[1].

S1p receptor agonist 1 (oral administration; 0.3-1mg/kg; 30 days; once daily) inhibits the development of experimental autoimmune encephalitis (EAE) as a dose-dependent manner in mice model[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Lewis rats[1]
Dosage:	3 mg/kg
Administration:	Oral administration
Result:	Decreased the severity score of arthritis in the four-legged rats.

Animal Model:	Female C57BL/6 mice[1]
Dosage:	0.03, 0.1, and 1 mg/kg
Administration:	Oral administration
Result:	Decreased the severity score of EAE in MOG 35-55 induced mice.

REFERENCES

[1]. Zhenwei, et al. Immune adjustment compound, use thereof and pharmaceutical composition comprising same. Patent WO2015039587A1

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