**Proteins** 

# ASP-4058 hydrochloride

Cat. No.: HY-111021A CAS No.: 952510-14-4 Molecular Formula:  $C_{19}H_{13}ClF_{6}N_{4}O_{2}$ 

Molecular Weight: 478.78

Target: LPL Receptor Pathway: GPCR/G Protein

4°C, sealed storage, away from moisture and light Storage:

\* In solvent: -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture

and light)

**Product** Data Sheet

## **SOLVENT & SOLUBILITY**

In Vitro

DMSO: 200 mg/mL (417.73 mM; Need ultrasonic)

H<sub>2</sub>O: < 0.1 mg/mL (ultrasonic; warming; heat to 60°C) (insoluble)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	2.0886 mL	10.4432 mL	20.8864 mL
	5 mM	0.4177 mL	2.0886 mL	4.1773 mL
	10 mM	0.2089 mL	1.0443 mL	2.0886 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 5 mg/mL (10.44 mM); Clear solution

## **BIOLOGICAL ACTIVITY**

Description

ASP-4058 hydrochloride is a next-generation, selective and orally active agonist for Sphingosine 1-Phosphate receptors 1 and 5 (S1P<sub>1</sub> and S1P<sub>5</sub>), ameliorates rodent experimental autoimmune encephalomyelitis with a favorable safety profile<sup>[1]</sup>.

In Vivo

ASP4058 (p.o., daily for 21 days) hydrochloride reduces the clinical score in a dose-dependent manner and the cumulative clinical score from day 0 to 21 dpi at 0.03, 0.1 and 0.3 mg/kg are 15.5±1.48, 9.50±2.17 and 1.17±1.17, respectively, while that of vehicle-treated group is 15.5±0.619 in rats. ASP4058 prevents decreases in body weight of EAE rats<sup>[1]</sup>.

ASP4058 (p.o., daily for day 12 to day 45) hydrochloride maintains the clinical score at a relatively low level and the cumulative clinical scores (18-45 dpi) among the groups treated with 0.1 and 0.3 mg/kg dosages are 6.90±2.85 and 5.60±2.21, respectively in mice. The ED50 values for ASP4058 is  $0.063 \text{ mg/kg}^{[1]}$ .

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

REFERENCES				
[1]. Rie Yamamoto, et al. ASP4058, a Novel Agonist for Sphingosine 1-Phosphate Receptors 1 and 5, Ameliorates Rodent Experimental Autoimmune Encephalomyelitis w a Favorable Safety Profile. PLoS One. 2014 Oct 27;9(10):e110819.				
	Caution: Product has not been fully validated for medical applications. For research use only.			
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