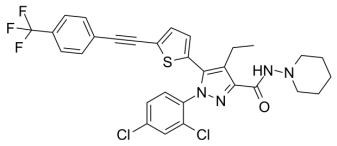
CB1 antagonist 4

Cat. No.:	HY-112340
CAS No.:	1253641-65-4
Molecular Formula:	$C_{30}H_{25}Cl_2F_3N_4OS$
Molecular Weight:	617.51
Target:	Cannabinoid Receptor
Pathway:	GPCR/G Protein; Neuronal Signaling
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 2 years -20°C 1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 41.67 mg/mL (67.48 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	1.6194 mL	8.0970 mL	16.1941 mL
5 mM	0.3239 mL	1.6194 mL	3.2388 mL
10 mM	0.1619 mL	0.8097 mL	1.6194 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: ≥ 4.17 mg/mL (6.75 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

CB1 antagonist 4 (compound 8) is a peripheral selective cannabinoid receptor type 1 (CB1) receptor antagonist. CB1 antagonist 4 shows limited penetrance to the brain in order to minimize or prevent CNS adverse reactions, and preserves potential antiobesity effects. CB1 antagonist 4 reduces propensity for psychiatric side effects[1][2].

IC_{50} & Target

CB1

In Vivo

CB1 antagonist 4 (compound 8) (10-100 mg/kg; p.o.) induces a significant increase in freezing behavior at 100 mg/kg[1].

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

Animal Model:	7-8 weeks old male C57BL/6 N mice (B6N)[1]

Dosage:	10, 30, or 100 mg/kg
Administration:	p.o.
Result:	High dose (100 mg/kg) induced a significant increase in freezing behavior.

REFERENCES

[1]. Micale V, et al. The Cannabinoid CB1 Antagonist TM38837 With Limited Penetrance to the Brain Shows ReducedFear-Promoting Effects in Mice. Front Pharmacol. 2019 Mar 20;10:207.

[2]. Klumpers LE, et al. Peripheral selectivity of the novel cannabinoid receptor antagonist TM38837 in healthy subjects. Br J Clin Pharmacol. 2013 Dec;76(6):846-57.

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