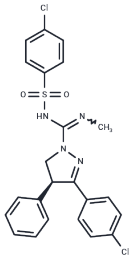
Data Sheet (Cat.No.T21914)

TargetMol

(S)-SLV 319

Chemical Properties



CAS No. : 464213-10-3

Formula: C23H20Cl2N4O2S

Molecular Weight: 487.4

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	Ibipinabant (SLV319) is a potent, selective, and orally active cannabinoid CB1 receptor antagonist, with a K_i of 7.8 nM and over 1000-fold selectivity for CB1 compared to CB2 (K_i = 7943 nM). It is utilized in obesity and diabetes research [1] [2] [3].
Targets(IC50)	Cannabinoid Receptor,Others
In vitro	SLV319 competitively inhibits CP-55940 (CB agonist) binding to the human CB1 receptor in CHO cells genetically modified to express this receptor, exhibiting an inhibition constant (K i) of 7.8 nM [1]. Furthermore, SLV319 dose-dependently antagonizes the WIN-55212 (CB1 agonist)-induced release of arachidonic acid in these cells, demonstrating a potency (pA2) of 9.9 [1].
In vivo	SLV319, administered orally at a dosage of 3 mg/kg/day for 28 days, effectively reduces food intake, body weight, and hormonal/metabolic abnormalities in diet-induced obesity (DIO) mice, as well as reverses high-fat diet (HFD)-induced increases in adipose tissue leptin mRNA. At doses ranging from 3-10 mg/kg given daily via oral gavage for 56 days, SLV319 also demonstrates weight loss-independent antidiabetic effects and mitigates β-cell loss in a rat model of progressive β-cell dysfunction. Furthermore, SLV319 counters CB agonist (CP55940)-induced hypotension in rats and hypothermia in mice, showcasing ED 50 values of 5.5 and 3 mg/kg, respectively. In an animal model involving six-week-old male C57Bl/6J mice fed a diet of 60% calories from fat, resulting in body weights exceeding 42 g within 12-14 weeks, a similar dosage and administration method led to significant reductions in food intake, body weight, and adiposity in DIO mice.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.0517 mL	10.2585 mL	20.517 mL
5 mM	0.4103 mL	2.0517 mL	4.1034 mL
10 mM	0.2052 mL	1.0259 mL	2.0517 mL
50 mM	0.041 mL	0.2052 mL	0.4103 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.