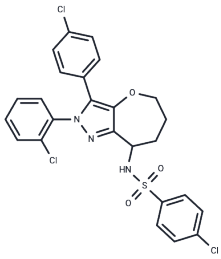
Data Sheet (Cat.No.T206797)

TargetMol

BNS808

Chemical Properties



CAS No. : 2836313-12-1

Formula: C25H20Cl3N3O3S

Molecular Weight: 548.869

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	BNS808 is an orally active, selective CB1R antagonist with an IC50 of 0.8 nM, demonstrating significant selectivity for CB2R and minimal brain penetration. It is being studied for the treatment of obesity and related metabolic complications, such as metabolic dysfunction-associated steatotic liver disease (MASLD). BNS808 reduces drug exposure to the central nervous system, enhancing safety, and minimizes drug interactions through high plasma protein binding.
Targets(IC50)	Cannabinoid Receptor,Cytochromes P450
In vitro	BNS808 demonstrates very low cytotoxicity in HepG2 cells over 72 hours, with an IC 50 of 16.84 μM. It has an hERG IC 50 of 5.39 μM, indicating an IC 50 of 0.8 nM for CB 1 R, suggesting low cardiac toxicity potential. At a concentration of 0.2 mg/mL for 10 minutes, BNS808 exhibits moderate inhibition of CYP3A4, weak to moderate inhibition of CYP2C9 and CYP2C19, and weak inhibition of CYP1A2 and CYP2D6, with IC 50 values of 2.99, 8.33, 18.0, and >50 μM, respectively.
In vivo	Following a single administration, BNS808 (1 mg/kg, oral) exhibited limited brain penetration (average 13.7 ng/g) at various time points (1-8 hours) in C57Bl/6 mice. With prolonged administration of BNS808 (1 mg/kg, oral, 24 days), brain penetration remained limited (approximately 20 ng/g). No central nervous system-mediated side effects or significant changes in motor activity were observed at both low (1 mg/kg) and high (10 mg/kg) doses in wild-type male C57Bl/6J mice. Furthermore, BNS808 (1 mg/kg/day, oral, 24 days) reduced body weight and improved metabolic status in diet-induced obese (DIO) C57Bl/6J mice.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.8219 mL	9.1096 mL	18.2193 mL
5 mM	0.3644 mL	1.8219 mL	3.6439 mL
10 mM	0.1822 mL	0.911 mL	1.8219 mL
50 mM	0.0364 mL	0.1822 mL	0.3644 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.