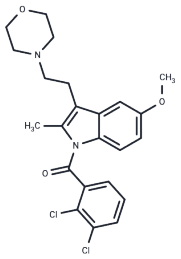
Data Sheet (Cat.No.T7705)

TargetMol

GW 405833

Chemical Properties



CAS No. : 180002-83-9

Formula: C23H24Cl2N2O3

Molecular Weight: 447.35

Storage: Keep away from moisture
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	GW 405833 (L-768242) is an agonist of cannabinoid-2 (CB(2)) receptor-selective
Targets(IC50)	Cannabinoid Receptor
In vivo	GW405833 (3, 10, and 30 mg/kg i.p.) dose dependently reversed established mechanical allodynia in both pain models in WT mice;?however, the antiallodynic effects of GW405833 were fully preserved in CB2KO mice and absent in CB1KO mice.? Furthermore, the antiallodynic efficacy of GW405833 (30 mg/kg i.p.) was completely blocked by the CB1 antagonist rimonabant (10 mg/kg i.p.) but not by the CB2 antagonist SR144528 (10 mg/kg i.p.).?Thus, the antinociceptive properties of GW405833 are dependent on CB1 receptors.?GW405833 (30 mg/kg i.p.) was also inactive in a tetrad of tests measuring cardinal signs of CB1 activation.?Additionally, unlike rimonabant (10 mg/kg i.p.), GW405833 (10 mg/kg, i.p.) did not act as a CB1 antagonist in vivo to precipitate withdrawal in mice treated chronically with Δ9-tetrahydrocannabinol[1].
Animal Research	Baseline mechanical paw withdrawal thresholds were measured in each paw for each animal before performing either PSNL or injecting CFA.?Another predrug baseline was then taken after painful peripheral neuropathy or inflammatory pain was fully established.?GW405833 was administered (i.p.) 30 minutes before evaluation of the impact of drug manipulations on mechanical paw withdrawal thresholds.?Different doses of GW405833 were injected (i.p.) within subjects in the order of vehicle (0), 3, 10, and 30 mg/kg.?Sufficient time was allowed to lapse between each dose to verify that mechanical paw withdrawal thresholds returned to the predrug levels before dose escalation. .?In the groups where CB1 or CB2 antagonists were tested, rimonabant or SR144528 (10 mg/kg i.p.) was administered 20 minutes before GW405833 injection[1].

Solubility Information

Solubility	DMSO: 10 mg/mL (22.35 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.2354 mL	11.1769 mL	22.3539 mL
5 mM	0.4471 mL	2.2354 mL	4.4708 mL
10 mM	0.2235 mL	1.1177 mL	2.2354 mL
50 mM	0.0447 mL	0.2235 mL	0.4471 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.

Reference

Li A L , Carey L M , Mackie K , et al. The cannabinoid CB 2 agonist GW405833 suppresses inflammatory and neuropathic pain through a CB 1 mechanism that is independent of CB 2 receptors in mice[J]. Journal of Pharmacology and Experimental Therapeutics, 2017, 362(2):jpet.117.241901.

Parlar A , Arslan S , Doğan, Muhammed, et al. The exogenous administration of CB2 specific agonist, GW405833, inhibits inflammation by reducing cytokine production and oxidative stress[J]. Experimental and Therapeutic Medicine, 2018.

Huang Z , Wang H , Wang J , et al. Cannabinoid receptor subtype 2 (CB2R) agonist, GW405833 reduces agonist-induced Ca2+ oscillations in mouse pancreatic acinar cells[J]. Scientific Reports, 2016, 6(1):29757.