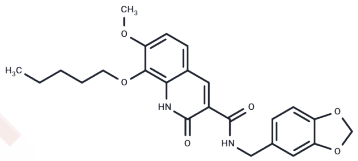
Data Sheet (Cat.No.T19705)

TargetMol

JTE-907

Chemical Properties



CAS No. : 282089-49-0

Formula: C24H26N2O6

Molecular Weight: 438.47

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	JTE-907 is a CB2 receptor inverse agonist with high selectivity and oral activity.JTE-907 exhibits anti-inflammatory activity in vivo.
Targets(IC50)	Cannabinoid Receptor
In vitro	JTE 907 acts as a Gq-coupled agonist in islets to stimulate insulin secretion and maintain β-cell mass in a GPR55-independent fashion. JTE 907 (10 μM) significantly stimulated insulin secretion from islets isolated from human donors and islets from Gpr55+/+ and Gpr55-/- mice. These stimulatory effects were accompanied by significant elevations of IP1 and [Ca2+]i, but there were no changes in cAMP generation. JTE 907 also significantly reduced cytokine-induced apoptosis in human and mouse islets and promoted human β-cell proliferation.[4]

Solubility Information

Solubility	DMSO: 112.5 mg/mL (256.57 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.2807 mL	11.4033 mL	22.8066 mL
5 mM	0.4561 mL	2.2807 mL	4.5613 mL
10 mM	0.2281 mL	1.1403 mL	2.2807 mL
50 mM	0.0456 mL	0.2281 mL	0.4561 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

Altun A, et al. Attenuation of morphine antinociceptive tolerance by cannabinoid CB1 and CB2 receptor antagonists. J Physiol Sci. 2015;65(5):407-415.
Marini P, et al. Characterization of cannabinoid receptor ligands in tissues natively expressing cannabinoid CB2 receptors. Br J Pharmacol. 2013;169(4):887-899.
Harvey BS, et al. Cannabinoid CB2 receptor activation attenuates cytokine-evoked mucosal damage in a human colonic explant model without changing epithelial permeability. Cytokine. 2013;63(2):209-217.
Ruz-Maldonado I, et al. Direct Stimulatory Effects of the CB2 Ligand JTE 907 in Human and Mouse Islets. Cells. 2021; 10(3):700.
Ueda Y, et al. Involvement of cannabinoid CB(2) receptor-mediated response and efficacy of cannabinoid CB(2) receptor inverse agonist, JTE-907, in cutaneous inflammation in mice. Eur J Pharmacol. 2005;520(1-3):164-171.
Maekawa T, et al. The cannabinoid CB2 receptor inverse agonist JTE-907 suppresses spontaneous itch-associated responses of NC mice, a model of atopic dermatitis. Eur J Pharmacol. 2006;542(1-3):179-183.