BD1063 dhydrochloride

Cat. No.: HY-18101A

CAS No.: 206996-13-6

Molecular Formula: $C_{13}H_{20}Cl_4N_2$

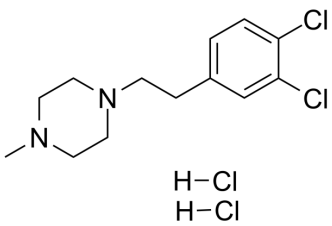
Molecular Weight: 346.12

Target: Sigma Receptor

Pathway: Neuronal Signaling

Storage: 4°C, sealed storage, away from moisture

* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

H_2O : 100 mg/mL (288.92 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.8892 mL	14.4459 mL	28.8917 mL
5 mM	0.5778 mL	2.8892 mL	5.7783 mL
10 mM	0.2889 mL	1.4446 mL	2.8892 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: PBS
   Solubility: 100 mg/mL (288.92 mM); Clear solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

BD1063 dihydrochloride is a potent and selective sigma 1 receptor antagonist.

In Vivo

BD1063 dose-dependently reduces ethanol self-administration in sP rats (3.3-11 mg/kg) and withdrawn, dependent Wistar rats (4-11 mg/kg) at doses that does not modify mean ethanol self-administration in non-dependent Wistar controls. BD1063 also reduces the breakpoints of sP rats to work for ethanol under a progressive-ratio reinforcement schedule[1]. BD1063 dose-dependently reduces binge-like eating and the regularity of food responding, and blocks the increased eating rate in Palatable rats. In the light/dark conflict test, BD1063 antagonizes the increased time spent in the aversive compartment and the increased intake of the palatable diet, without affecting motor activity[2]. The administration of BD1063 30 minutes before each paclitaxel dose prevents the development of cold and mechanical allodynia in WT mice. Moreover, the acute administration of BD1063 dose dependently reverses both types of paclitaxel-induced allodynia[3].

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

PROTOCOL

Animal Administration [1]	Rats: BD1063 is solubilized in isotonic saline and injected subcutaneously (s.c. 1 ml/kg), 15 min before testing. Rats are pretreated with BD1063 (0, 4.4, 7 and 11 mg/kg of body weight, free base weights, s.c.) using a within-subject Latin square design. sP rats: Rats are pretreated with BD1063 (0, 3, 4.4, 7 and 11 mg/kg of body weight, free base basis, s.c.) using a within-subject Latin square design[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Sabino V, et al. The sigma-receptor antagonist BD-1063 decreases ethanol intake and reinforcement in animal models of excessive drinking. Neuropsychopharmacology. 2009 May;34(6):1482-93.

[2]. Cottone P, et al. Antagonism of sigma-1 receptors blocks compulsive-like eating. Neuropsychopharmacology. 2012 Nov;37(12):2593-604.

[3]. Nieto FR, et al. Role of sigma-1 receptors in paclitaxel-induced neuropathic pain in mice. J Pain. 2012 Nov;13(11):1107-21.

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