

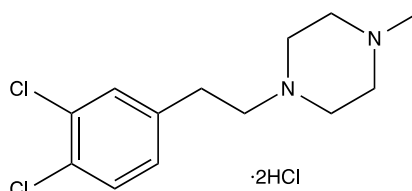
Catalog # 10-4211

BD1063 dihydrochloride

1-[2-(3,4-Dichlorophenyl)ethyl]-4-methylpiperazine dihydrochloride

206996-13-6

Lot # JKM1182



BD1063 is potent and selective sigma-1 antagonist (IC_{50} 's: $\sigma_1 = 9nM$, $\sigma_2 = 449nM$).¹ BD1063 abolished mechanical and thermal hyperalgesia in mice with carrageenan-induced acute inflammation by enhancing the action of endogenous opioid peptides of immune origin in a σ_1 dependent manner.² BD1063 potentiated μ -opioid antinociception in mice in a sigma-dependent manner.³ BD-1063 has been used in animal models to successfully treat compulsive eating⁴ and excessive ethanol drinking⁵.

- 1) Matsumoto *et al.* (1995), *Characterisation of two novel σ receptor ligands: antidystonic effects in rats suggest σ receptor antagonism*; Eur.J.Pharmacol. **280** 301
- 2) Tejada *et al.* (2017), *Sigma-1 receptors control immune-driven peripheral opioid analgesia during inflammation in mice*; Proc.Natl.Acad.Sci.USA **114** 8396
- 3) Sanchez-Fernandez *et al.* (2014), *Modulation of peripheral μ -opioid analgesia by σ_1 receptors*; J.Pharmacol.Exp.Ther. **348** 32
- 4) Cottone *et al.* (2012), *Antagonism of sigma-1 receptors blocks compulsive-like eating*; Neuropsychopharmacology **37** 2593
- 5) Sabino *et al.* (2009), *The sigma-receptor antagonist BD-1063 decrease ethanol intake and reinforcement in animal models of excessive drinking*; Neuropsychopharmacology **34** 1482

PHYSICAL DATA

Molecular Weight: 346.13
Molecular Formula: $C_{13}H_{18}Cl_2N_2 \cdot 2HCl$
Purity: >98% by HPLC
NMR: Conforms
Solubility: Water (>25 mg/mL)
Physical Description: Off-white solid
Storage and Stability: Store as supplied desiccated at $-20^{\circ}C$ for up to 1 year from the date of purchase.
Solutions in water may be stored at $-20^{\circ}C$ for up to 3 months.

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