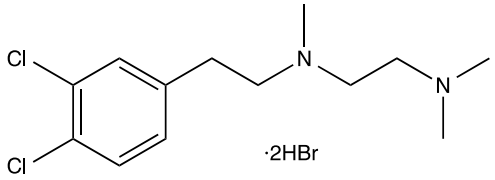
Catalog # 10-4210

BD1047 dihydrobromide

N-[2-(3,4Dichlorophenyl)ethyl]-N-methyl-2-(dimethylamino)ethylamine dihydrobromide

138356-21-5

Lot # JKM1193



BD1047 is a potent and selective sigma-1 antagonist (IC_{50}'s: $\sigma 1$ = 0.93nM, $\sigma 2$ = 47nM). .[1] Pretreatment of mice with BD1047 reduced convulsions, lethality, and locomotor activity induced by cocaine.[2] BD1047 attenuated high fat diet-induced peripheral neuropathy in mice.[3] BD1047 displayed antinociceptive effects in several rodent pain models.[4-6] It also inhibits the β-adrenoreceptor (IC_{50} = 145 nM).[1]

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) McCracken *et al*. (1999), *Two novel sigma receptor ligands, BD1047 and LR172, attenuate cocaine-induced toxicity and locomotor activity*; Eur.J.Pharmacol. **370** 225
3) Song *et al.* (2017), *Role of sigma 1 receptor in high fat diet-induced peripheral neuropathy;* Biol.Chem. **398** 1141
4) Jeong *et al.* (2005), *The spinal antinociceptive mechanism determined by systemic administration of BD1047 in zymosan-induced hyperalgesia in rats; Brain Res. Bull.* **119(Pt.A)** 93
5) Roh and Yoon (2014), *Sigma-1 receptor antagonist BD1047 reduces nociceptive response and phosphorylation of p38 MAPK in mice orofacial formalin model;* Biol.Pharm.Bull. **37** 145
6) Zhu *et al.* (2015), *Sigma-1 Receptor Antagonist BD1047 Reduces Mechanical Allodynia in a Rat Model of Bone Cancer Pain through the Inhibition of Spinal NR1 Phosphorylation and Microglia Activation;* Mediators Inflamm. **2015** 265056

PHYSICAL DATA

Molecular Weight:	437.04
Molecular Formula:	$C_{13}H_{20}Cl_2N_2 \cdot 2HBr$
Purity:	>98% by HPLC
	NMR: Conforms
Solubility:	DMSO (20 mg/mL) and water (20 mg/mL)
Physical Description:	Off-white solid
Storage and Stability:	Store as supplied desiccated at -20°C for up to 1 year from the date of purchase. Solutions in DMSO or water may be stored at -20°C for up to 3 months.

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