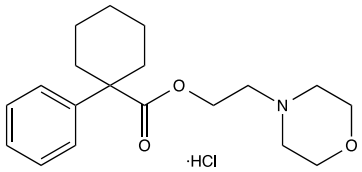
Catalog # 10-4203

PRE-084 hydrochloride

2-(4-Morpholinethyl) 1-phenylcyclohexanecarboxylate hydrochloride

138847-85-5

Lot # FBS1059



PRE084 is an agonist of the σ receptor with selectivity for the σ1 subtype (IC_{50}'s: σ1 = 2.2nM, σ2 = 13091nM).[1] PRE-084 has demonstrated neuroprotective/restorative effects in brain injury[2,3] and neurodegenerative conditions[4-7].

1) Su *et al*. (1991), *Sigma compounds derived from phencyclidine. Identification of PRE-084, a new selective sigma ligand*; J.Pharmacol.Exp.Ther. **259** 543
2) Griesmaier *et al*. (2012), *Neuroprotective effects of the sigma-1 receptor ligand PRE-084 against excitotoxic perinatal brain injury in newborn mice*; Exp.Neurol. **237** 388
3) Dong *et al.* (2016), *Sigma-1 Receptor Modulates Neuroinflammation After Traumatic Brain Injury;* Cell Mol.Neurobiol. **36** 639
4) Guzman-Lenis *et al.* (2009), *Selective sigma receptor agonist 2-(4-Morpholinethyl) 1-phenylcyclohexanecarboxylate (PRE084) promotes neuroprotection and neurite elongation through protein kinase C (PKC) signaling on motoneurons; Neuroscience* **162** 31
5) Hyrskyluoto *et al.* (2013), *Sigma-1 receptor agonist PRE084 in protective against mutant huntingtin-induced cell degeneration: involvement of calpastatin and the NF-kB pathway;* Cell Death Dis. **4** e646
6) Francardo *et al.* (2014), *Pharmacological stimulation of sigma-1 receptors has neurorestorative effects in experimental parkinsonism;* Brain **137(Pt7)** 1998
7) Mancuso *et al.* (2012), *Sigma-1R agonist improves motor function and motoneuron survival in ALS mice;* Neurotherapeutics **9** 814

PHYSICAL DATA

Molecular Weight:	353.89
Molecular Formula:	$C_{19}H_{27}NO_3 \cdot HCl$
Purity:	>98% by HPLC
	NMR: Conforms
Solubility:	DMSO (25 mg/mL) and water (7 mg/mL)
Physical Description:	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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