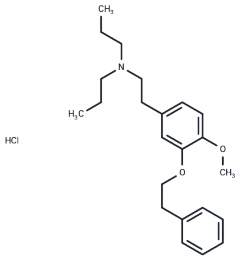
Data Sheet (Cat.No.T20797)

TargetMol

NE-100 hydrochloride

Chemical Properties



CAS No. : 149409-57-4

Formula: C23H34ClNO2

Molecular Weight: 391.98

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	NE-100 hydrochloride (NE-100 HCl) is a potent and selective antagonist of σ1 (IC50 = 4.16 nM) with antipsychotic activity. NE100 HCl also suppresses ER stress-induced hippocampal cell death.
Targets(IC50)	Sigma receptor

Solubility Information

Solubility	DMSO: 250 mg/mL (637.79 mM),Sonication is recommended. H2O: 15 mg/mL (38.27 mM),Sonication and heating to 60°C are recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: 10 mg/mL (25.51 mM),Solution. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.5512 mL	12.7558 mL	25.5115 mL
5 mM	0.5102 mL	2.5512 mL	5.1023 mL
10 mM	0.2551 mL	1.2756 mL	2.5512 mL
50 mM	0.051 mL	0.2551 mL	0.5102 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

Lenart L, et al. The role of sigma-1 receptor and brain-derived neurotrophic factor in the development of diabetes and comorbid depression in streptozotocin-induced diabetic rats. Psychopharmacology (Berl). 2016 Apr;233(7): 1269-78.

Di T, et al. Hyperactivity of Hypothalamic-Pituitary-Adrenal Axis Due to Dysfunction of the Hypothalamic Glucocorticoid Receptor in Sigma-1 Receptor Knockout Mice. Front Mol Neurosci. 2017 Sep 6;10:287.

Chen T, et al. Neurosteroid dehydroepiandrosterone enhances activity and trafficking of astrocytic GLT-1 via σ(1) receptor-mediated PKC activation in the hippocampal dentate gyrus of rats. Glia. 2017 Sep;65(9):1491-1503.

Li D, et al. Sigma-1 receptor agonist increases axon outgrowth of hippocampal neurons via voltage-gated calcium ions channels. CNS Neurosci Ther. 2017 Dec;23(12):930-939.