Data Sheet (Cat.No.T12238)

TargetMol

NNC 55-0396

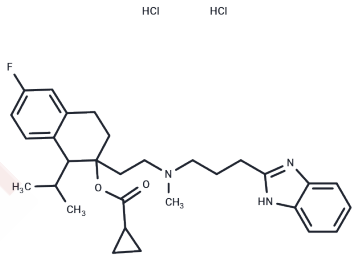
Chemical Properties

CAS No. : 357400-13-6

Formula: C30H40Cl2FN3O2

Molecular Weight: 564.56

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	NNC 55-0396 is a highly selective T-type calcium channel blocker with an IC50 of 6.8 μM, used in studies to prevent human ovarian cancer cell proliferation.
Targets(IC50)	Calcium Channel

Solubility Information

Solubility	DMSO: 150 mg/mL (265.69 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 3.3 mg/mL (5.85 mM),Sonication is recommended. *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	1.7713 mL	8.8565 mL	17.7129 mL
5 mM	0.3543 mL	1.7713 mL	3.5426 mL
10 mM	0.1771 mL	0.8856 mL	1.7713 mL
50 mM	0.0354 mL	0.1771 mL	0.3543 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

Timo Strünker, Normann Goodwin, Christoph Brenker, et al. The CatSper channel mediates progesterone-induced Ca2+ influx in human sperm. Nature, 2011,471, 382-386.

Hideto Miwa, Jinsoo Koh, Yoshinori Kajimoto, et al. Effects of T-type calcium channel blockers on a parkinsonian tremor model in rats. Pharmacology Biochemistry and Behavior. 2011,97(4): 656-659.

Li M, Hansen JB, Huang L, et al. Towards selective antagonists of T-type calcium channels: design, characterization and potential applications of NNC 55-0396. Cardiovasc Drug Rev. 2005 Summer;23(2):173-96.

Huang L, Keyser BM, Tagmose TM, et al. NNC 55-0396 [(1S,2S)-2-(2-(N-[(3-benzimidazol-2-yl)propyl]-N-methylamino)ethyl)-6-fluoro-1,2,3,4-tetrahydro-1-isopropyl-2-naphtyl cyclopropanecarboxylate dihydrochloride]: a new selective inhibitor of T-type calcium channels. J Pharmacol Exp Ther. 2004 Apr;309(1):193-9.

Arnulfo Quesadaa, Peter H. Bui, Gregg E. Homanics, et al. Comparison of mibefradil and derivative NNC 55-0396 effects on behavior, cytochrome P450 activity, and tremor in mouse models of essential tremor. European Journal of Pharmacology. 2011,659 (1): 30-36.