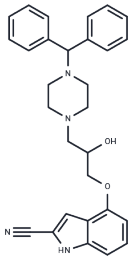
Data Sheet (Cat.No.T27205)

TargetMol

DPI 201-106

Chemical Properties



CAS No. : 97730-95-5

Formula: C29H30N4O2

Molecular Weight: 466.57

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	DPI 201-106 is a cardioselective inhibitor of the TTX-resistant h1 Na channel inactivation resulting in a positive inotropic effect. DPI-201-106 also inhibits the inward and delayed rectifier potassium currents and L-type calcium current.
Targets(IC50)	Sodium Channel
In vitro	DPI 201-106(0.1 - 3 μM) produces concentration-dependent positive inotropic effects in guinea-pig and rat left atria, kitten, rabbit and guinea-pig papillary muscles and Langendorff perfused hearts of rabbits[2]. DPI 201-106 increases the Ca2+ sensitivity (EC50 = 0.2 nM) of skinned fibres from porcine trabecula septomarginalis[2].
In vivo	DPI 201-106(0.2 mg/kg i.v) administration increased left ventricular dP/dtmax in anesthetized dogs[3].

Solubility Information

Solubility	DMSO: 250 mg/mL (535.83 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: 5 mg/mL (10.72 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	2.1433 mL	10.7165 mL	21.433 mL
5 mM	0.4287 mL	2.1433 mL	4.2866 mL
10 mM	0.2143 mL	1.0717 mL	2.1433 mL
50 mM	0.0429 mL	0.2143 mL	0.4287 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

Cheng HC, Incardona J. Models of torsades de pointes: effects of FPL64176, DPI201106, dofetilide, and chromanol 293B in isolated rabbit and guinea pig hearts. J Pharmacol Toxicol Methods. 2009 Sep-Oct;60(2):174-84.
G Scholtysik, et al. Interaction of DPI 201-106 with cardiac glycosides. J Cardiovasc Pharmacol. 1989 Feb;13(2):342-7.
M Mevissen, et al. Identification of a cardiac sodium channel insensitive to synthetic modulators. J Cardiovasc Pharmacol Ther. 2001 Apr;6(2):201-12.
G Scholtysik, et al. DPI 201-106, a novel cardioactive agent. Combination of cAMP-independent positive inotropic, negative chronotropic, action potential prolonging and coronary dilatory properties. Naunyn Schmiedebergs Arch Pharmacol.1985 May;329(3):316-25.

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