DPI 201-106

Cat. No.: HY-19666

CAS No.: 97730-95-5

Molecular Formula: $C_{29}H_{30}N_4O_2$

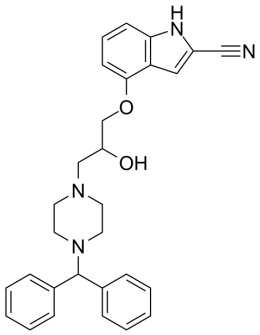
Molecular Weight: 466.57

Target: Sodium Channel

Pathway: Membrane Transporter/Ion Channel

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 250 mg/mL (535.83 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.1433 mL	10.7165 mL	21.4330 mL
5 mM	0.4287 mL	2.1433 mL	4.2866 mL
10 mM	0.2143 mL	1.0717 mL	2.1433 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.08 mg/mL (4.46 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (4.46 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (4.46 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

DPI 201-106 (SDZ 201106) is a cardiotonic agent with a synergistic sarcolemmal and intracellular mechanism of action. DPI 201-106 shows cardioselective modulation of voltage-gated sodium channels (VGSCs) resulting in a positive inotropic effect [1][2][3].

IC_{50} & Target

Sodium Channel[3]

In Vitro

DPI 201-106 increases the Ca^{2+}-sensitivity of skinned fibres from porcine trabecula septomarginalis with an EC_{50} of 0.2 nM[2].

	DPI 201-106 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 between 0.1 and 3 μM[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	In anesthetized dogs, left ventricular dP/dtmax is increased by DPI 201-106 0.2 mg/kg i.v.In digoxin-pretreated anesthetized cats, DPI 201-106 is infused up to an accumulated dose of 12.22 mg/kg i.v. [3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. 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.

[2]. G Scholtysik, et al. Interaction of DPI 201-106 with cardiac glycosides. J Cardiovasc Pharmacol. 1989 Feb;13(2):342-7.

[3]. M Mevissen, et al. Identification of a cardiac sodium channel insensitive to synthetic modulators. J Cardiovasc Pharmacol Ther. 2001 Apr;6(2):201-12.

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