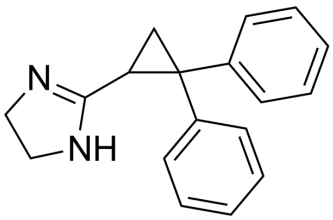
Cibenzoline

Cat. No.:	HY-106577
CAS No.:	53267-01-9
Molecular Formula:	$C_{18}H_{18}N_2$
Molecular Weight:	262.35
Target:	Potassium 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 : 100 mg/mL (381.17 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.8117 mL	19.0585 mL	38.1170 mL
	5 mM	0.7623 mL	3.8117 mL	7.6234 mL
	10 mM	0.3812 mL	1.9059 mL	3.8117 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: ≥ 2.5 mg/mL (9.53 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (9.53 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (9.53 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Cibenzoline is a potent inhibitor of KATP channel with directly affecting the pore-forming Kir6.2 subunit rather than the SUR1 subunit. Cibenzoline is a class Ia antiarrhythmic agent. Cibenzoline has little anticholinergic activity. Cibenzoline markedly attenuate LVPG which has a close relationship with myocardial contractility decreasing. Cibenzoline has the potential for the research of hypertrophic obstructive cardiomyopathy[1][2].

IC_{50} & Target

KATP channel[1]

REFERENCES

[1]. Mukai E, et al. The antiarrhythmic agent cibenzoline inhibits KATP channels by binding to Kir6.2. Biochem Biophys Res Commun. 1998;251(2):477-481.

[2]. Hamada M, et al. Class Ia antiarrhythmic drug cibenzoline: a new approach to the medical treatment of hypertrophic obstructive cardiomyopathy. Circulation. 1997;96(5):1520-1524.

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