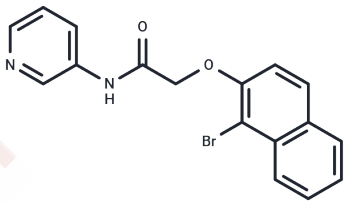
Data Sheet (Cat.No.T29131)

TargetMol

VU0405601

Chemical Properties



CAS No. : 712325-30-9

Formula: C17H13BrN2O2

Molecular Weight: 357.2

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	VU0405601 is a potent pharmacological activator of the KV11.1 channel (hERG) that functions as a hERG agonist, thereby protecting cardiac tissue against arrhythmias and ventricular tachycardia induced by other hERG-inhibiting compounds such as Dofetilide.
Targets(IC50)	Potassium Channel
In vitro	VU0405601 (5 μM, pretreated for 30 minutes before dofetilide) protects rabbit cardiac tissue from dofetilide-induced ventricular tachycardia. [1]

Solubility Information

Solubility	DMSO: 80 mg/mL (223.96 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 3.3 mg/mL (9.24 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	2.7996 mL	13.9978 mL	27.9955 mL
5 mM	0.5599 mL	2.7996 mL	5.5991 mL
10 mM	0.280 mL	1.3998 mL	2.7996 mL
50 mM	0.056 mL	0.280 mL	0.5599 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

Potet F, et al. Identification and characterization of a compound that protects cardiac tissue from human Ether-à-go-go-related gene (hERG)-related drug-induced arrhythmias. J Biol Chem. 2012 Nov 16;287(47):39613-25.
Yu Z, et al. Allosteric Modulation of Kv11.1 (hERG) Channels Protects Against Drug-Induced Ventricular Arrhythmias. Circ Arrhythm Electrophysiol. 2016 Apr;9(4):e003439.
Yu Z, et al. Synthesis and biological evaluation of negative allosteric modulators of the Kv11.1(hERG) channel. Eur J Med Chem. 2015 Dec 1;106:50-9.
Potet F, et al. Identification and characterization of a compound that protects cardiac tissue from human Ether-à-go-go-related gene (hERG)-related drug-induced arrhythmias. J Biol Chem. 2012 Nov 16;287(47):39613-25.