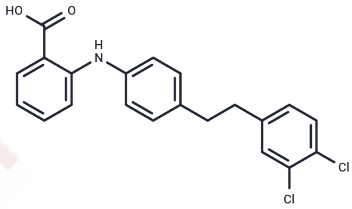
Data Sheet (Cat.No.T16444)

PD-118057

Chemical Properties



CAS No. : 313674-97-4

Formula: C21H17Cl2NO2

Molecular Weight: 386.27

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	PD-118057 is a potent ether associated (hERG) potassium channel activator that shows no activity against hERG. PD-118057 inhibits the excitability of the membrane by activating the hERG channel. PD-118057 is a potential compound for the treatment of delayed repolarization in inherited or acquired long QT syndrome and congestive heart failure.
Targets(IC50)	Potassium Channel
In vitro	PD-118057 (3 μM and 10 μM) specifically increases hERG current and inhibits action potential duration in acutely isolated guinea pig ventricular cardiomyocytes.[1][2] At 10 μM, PD-118057 counteracts the current inhibition caused by Dof and Mox, preserves the unaltered 'hump' shape of the IKr current, and shows only a marginal increase in the maximum value of the suppressed current.[2]

Solubility Information

Solubility	DMSO: 90 mg/mL (233 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 (8.54 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	2.5889 mL	12.9443 mL	25.8886 mL
5 mM	0.5178 mL	2.5889 mL	5.1777 mL
10 mM	0.2589 mL	1.2944 mL	2.5889 mL
50 mM	0.0518 mL	0.2589 mL	0.5178 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

Yeung SY, et al. Pharmacological and biophysical isolation of K+ currents encoded by ether-à-go-go-related genes in murine hepatic portal vein smooth muscle cells. Am J Physiol Cell Physiol. 2007;292(1):468-476.
Meng J, et al. Effect of PD-118057attenuates hypokalaemia or drug-induced prolongation of action potential duration in guinea pig ventricular myocytes. 2014;29(05):536-538.
Mao H, et al. Pharmacologic Approach to Defective Protein Trafficking in the E637K-hERG Mutant with PD-118057 and Thapsigargin. PLoS One. 2013;8(6):e65481.