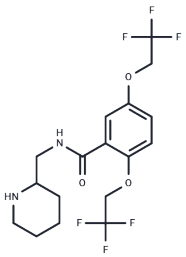
Data Sheet (Cat.No.T21391)

TargetMol

Flecainide

Chemical Properties



CAS No. : 54143-55-4

Formula: C17H20F6N2O3

Molecular Weight: 414.34

Storage: Keep away from direct sunlight,Store under nitrogen
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	Flecainide is an orally administered antiarrhythmic agent acting as a sodium channel blocker and IKr inhibitor, indicated for the treatment of paroxysmal supraventricular tachycardia (PSVT).
Targets(IC50)	Potassium Channel,Sodium Channel
In vitro	**Methods**: Flecainide (6 μM) was used to treat ventricular myocytes from Casq2-/- mice to observe spontaneous sarcoplasmic reticulum calcium release events and triggered activity. Result: Flecainide significantly suppressed the spontaneous sarcoplasmic reticulum calcium release events and triggered activity induced by adrenergic stimulation.[1]
In vivo	**Methods**: Flecainide (20 mg/kg) was administered intraperitoneally to Casq2-/- mice to observe its inhibitory effect on arrhythmia. Result: Flecainide completely suppressed adrenaline-induced arrhythmia, including premature ventricular contractions and bidirectional ventricular tachycardia.[1]

Solubility Information

Solubility	H2O: Insoluble, DMSO: 80 mg/mL (193.08 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: 3.3 mg/mL (7.96 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	2.4135 mL	12.0674 mL	24.1348 mL
5 mM	0.4827 mL	2.4135 mL	4.827 mL
10 mM	0.2413 mL	1.2067 mL	2.4135 mL
50 mM	0.0483 mL	0.2413 mL	0.4827 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

Watanabe H, et al. Flecainide prevents catecholaminergic polymorphic ventricular tachycardia in mice and humans. Nat Med. 2009 Apr;15(4):380-3.
Kramer J, et al. MICE models: superior to the HERG model in predicting Torsade de Pointes. Sci Rep. 2013;3:2100.
Andrikopoulos GK, Pastromas S, Tzeis S. Flecainide: Current status and perspectives in arrhythmia management. World J Cardiol. 2015 Feb 26;7(2):76-85. doi: 10.4330/wjc.v7.i2.76. Review. PubMed PMID: 25717355; PubMed Central PMCID: PMC4325304.
Apostolakis S, Oeff M, Tebbe U, Fabritz L, Breithardt G, Kirchhof P. Flecainide acetate for the treatment of atrial and ventricular arrhythmias. Expert Opin Pharmacother. 2013 Feb;14(3):347-57. doi: 10.1517/14656566.2013.759212. Epub 2013 Jan 7. Review. PubMed PMID: 23294160.