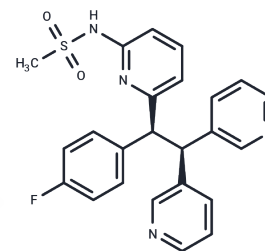


MK-0448

Chemical Properties

CAS No. : 875562-81-5
 Formula: C₂₄H₂₁FN₄O₂S
 Molecular Weight: 448.51
 Storage: Store at low temperature
 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	MK-0448 is a novel and selective blocker of the Kv1.5 (KCNA5) channel, a key channel involved in cardiac repolarization that is associated with atrial-specific ultra-rapid K ⁺ current I _{Kur} .
Targets(IC50)	Potassium Channel
In vitro	In vitro studies of MK-0448 demonstrated potent inhibition of I(Kur) with minimal off-target activity. [1]
In vivo	In vivo studies of MK-0448 in normal anesthetized dogs demonstrated a significant prolongation of atrial refractory period compared to vehicle controls, without affecting ventricular refractory period. In studies in a heart failure model in conscious dogs, persistent atrial fibrillation was terminated by bolus injections of MK-0448 at doses of 0.03 and 0.1 mg/kg.[1]

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.2296 mL	11.148 mL	22.296 mL
5 mM	0.4459 mL	2.2296 mL	4.4592 mL
10 mM	0.223 mL	1.1148 mL	2.2296 mL
50 mM	0.0446 mL	0.223 mL	0.4459 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

Pavri BB, et al. MK-0448, a specific Kv1.5 inhibitor: safety, pharmacokinetics, and pharmacodynamic electrophysiology in experimental animal models and humans. *Circ Arrhythm Electrophysiol.* 2012 Dec;5(6):1193-201.

Loose S, et al. Effects of IKur blocker MK-0448 on human right atrial action potentials from patients in sinus rhythm and in permanent atrial fibrillation. *Front Pharmacol.* 2014 Mar 4;5:26.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481