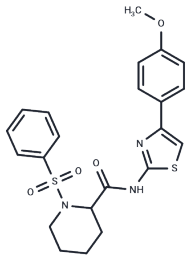
Data Sheet (Cat.No.T9778)

TargetMol

KCNQ1 activator-1

Chemical Properties



CAS No. : 1008671-38-2

Formula: C22H23N3O4S2

Molecular Weight: 457.57

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	2-Piperidinecarboxamide, N-[4-(4-methoxyphenyl)-2-thiazolyl]-1-(phenylsulfonyl)- is a potent KCNQ1 channel activator that can be used in long QT syndrome (LQTS) studies.
Targets(IC50)	Potassium Channel

Solubility Information

Solubility	DMSO: 250 mg/mL (546.36 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 (7.21 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	2.1855 mL	10.9273 mL	21.8546 mL
5 mM	0.4371 mL	2.1855 mL	4.3709 mL
10 mM	0.2185 mL	1.0927 mL	2.1855 mL
50 mM	0.0437 mL	0.2185 mL	0.4371 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

Mattmann ME, et al. Identification of (R)-N-(4-(4-methoxyphenyl)thiazol-2-yl)-1-tosylpiperidine-2-carboxamide, ML277, as a novel, potent and selective K(v)7.1 (KCNQ1) potassium channel activator. Bioorg Med Chem Lett. 2012; 22(18):5936-5941.

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