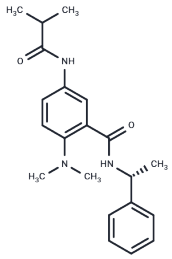
Data Sheet (Cat.No.T16815)

RY796

Chemical Properties



CAS No. : 1393441-53-6

Formula: C21H27N3O2

Molecular Weight: 353.46

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	RY796 is a selective voltage-gated potassium (KV2) channel inhibitor that inhibits KV2.1 and KV2.2, used in research on neurological disorders.
Targets(IC50)	Potassium Channel,Sodium Channel
In vitro	RY796 is a potent selective voltage-gated potassium (KV2) channel inhibitor with IC50 values of 0.25 μM and 0.09 μM for KV2.1 and KV2.2, respectively. [1]
In vivo	Inhibition of Kv2.x channel by RY796 enhanced GSIS in isolated wild-type (WT) mice and human islets. [2]

Solubility Information

Solubility	DMSO: 80 mg/mL (226.33 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 (9.34 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	2.8292 mL	14.1459 mL	28.2917 mL
5 mM	0.5658 mL	2.8292 mL	5.6583 mL
10 mM	0.2829 mL	1.4146 mL	2.8292 mL
50 mM	0.0566 mL	0.2829 mL	0.5658 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

Herrington J, et al. Identification of novel and selective Kv2 channel inhibitors. Mol Pharmacol. 2011 Dec;80(6):959-64.

Li XN, et al. The role of voltage-gated potassium channels Kv2.1 and Kv2.2 in the regulation of insulin and somatostatin release from pancreatic islets. J Pharmacol Exp Ther. 2013 Feb;344(2):407-16.