Data Sheet (Cat.No.T8372)

VU0134992

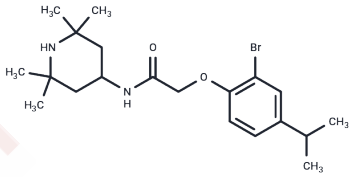
Chemical Properties

CAS No. : 755002-90-5

Formula: C20H31BrN2O2

Molecular Weight: 411.38

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	VU0134992 is an Kir4.1 blocker with an IC50 value of 0.97 μM
Targets(IC50)	Potassium Channel
In vitro	VU0134992 inhibits Kir4.1 with an IC50 value of 0.97 μM and is 9-fold selective for homomeric Kir4.1 over Kir4.1/5.1 concatemeric channels (IC50 = 9 μM) at -120 mV.?In thallium (Tl+) flux assays, VU0134992 is greater than 30-fold selective for Kir4.1 over Kir1.1, Kir2.1, and Kir2.2;?is weakly active toward Kir2.3, Kir6.2/SUR1, and Kir7.1;?and is equally active toward Kir3.1/3.2, Kir3.1/3.4, and Kir4.2.
In vivo	VU0134992 displayed a large free unbound fraction (fu) in rat plasma (fu = 0.213).? Consistent with the known role of Kir4.1 in renal function, oral dosing of VU0134992 led to a dose-dependent diuresis, natriuresis, and kaliuresis in rats.

Solubility Information

Solubility	DMSO: 60 mg/mL (145.85 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.4308 mL	12.1542 mL	24.3084 mL
5 mM	0.4862 mL	2.4308 mL	4.8617 mL
10 mM	0.2431 mL	1.2154 mL	2.4308 mL
50 mM	0.0486 mL	0.2431 mL	0.4862 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

Kharade SV, et al. Discovery, Characterization, and Effects on Renal Fluid and Electrolyte Excretion of the Kir4.1 Potassium Channel Pore Blocker, VU0134992. Mol Pharmacol. 2018 Aug;94(2):926-937.