VU6036720

Cat. No.: HY-148304

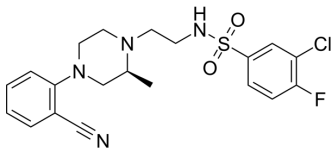
Molecular Formula: $C_{20}H_{22}ClFN_4O_2S$

Molecular Weight: 436.93

Target: Potassium Channel

Pathway: Membrane Transporter/Ion Channel

Storage: Please store the product under the recommended conditions in the Certificate of Analysis.



SOLVENT & SOLUBILITY

In Vitro

DMSO : 75 mg/mL (171.65 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.2887 mL	11.4435 mL	22.8870 mL
	5 mM	0.4577 mL	2.2887 mL	4.5774 mL
	10 mM	0.2289 mL	1.1443 mL	2.2887 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 10 mg/mL (22.89 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 10 mg/mL (22.89 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 10 mg/mL (22.89 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

VU6036720 is a potent and specific in vitro inhibitor of Kir4.1/5.1. VU6036720 can inhibit Kir4.1/5.1 channels with an IC_{50} value of 0.24 μM. VU6036720 can be used for the research of brain and kidney[1].

In Vitro

VU6036720 can inhibit Kir4.1/5.1 channels with an IC_{50} value of 0.24 μM[1].
VU6036720 inhibits Kir4.1/5.1 activity through a reduction of channel open-state probability and single-channel current amplitude[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Samantha J McClenahan, et al. VU6036720: The First Potent and Selective In Vitro Inhibitor of Heteromeric Kir4.1/5.1 Inward Rectifier Potassium Channels. Mol Pharmacol. 2022 May;101(5):357-370.

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