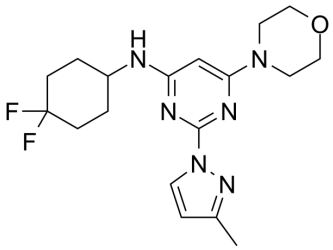
Rimtuzalcap

Cat. No.:	HY-109160
CAS No.:	2167246-24-2
Molecular Formula:	$C_{18}H_{24}F_2N_6O$
Molecular Weight:	378.42
Target:	Potassium Channel
Pathway:	Membrane Transporter/Ion Channel
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 250 mg/mL (660.64 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.6426 mL	13.2128 mL	26.4257 mL
	5 mM	0.5285 mL	2.6426 mL	5.2851 mL
	10 mM	0.2643 mL	1.3213 mL	2.6426 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: ≥ 2.08 mg/mL (5.50 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (5.50 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (5.50 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Rimtuzalcap (CAD-1883) is a first-in-class selective positive allosteric modulator of small-conductance calcium-activated potassium channels (SK channels). Rimtuzalcap can be used for the research of movement disorders including essential tremor (ET) and spinocerebellar ataxia (SCA)[1].

In Vitro

Rimtuzalcap (Compound 1) is a small molecule modulator of potassium ion channels showing great therapeutic potential for treating a variety of diseases characterized by dysfunction of potassium ion channels and dysfunction from other causes which influence these potassium channels[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo	Rimtuzalcap (CAD-1883) reduces the firing rate of Purkinje cells by approximately 40%, consistent with the anticipated therapeutic mechanism of positive allosteric modulation of SK channels. Sequential bath application of 1 or 3 μM CAD-1883 results in a partial reversal of the increased coefficient of variation of the interspike interval which is seen in cerebellar slices from 11-month-old spinocerebellar ataxia-2 58Q mice[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Crystalline forms of potassium channel modulators. WO2020086456A1.

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