

SKA-121

Chemical Properties

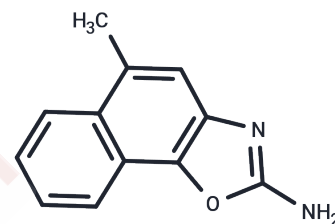
CAS No. : 1820708-73-3

Formula: C₁₂H₁₀N₂O

Molecular Weight: 198.22

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	SKA-121 is a selective KCa _{3.1} activator (EC ₅₀ s: 109 nM and 4.4 μM for KCa _{3.1} and KCa _{2.3} , respectively).
Targets(IC ₅₀)	Others,Potassium Channel
In vitro	SKA-121 is a typical positive-gating modulator and shifts the calcium-concentration response curve of KCa _{3.1} to the left. SKA-121 shows 41-fold selectivity for KCa _{3.1} (EC ₅₀ 109 nM±14 nM) over KCa _{2.3} (EC ₅₀ 4.4 ± 1.6 μM). SKA-121 is 200- to 400-fold selective over representative KV (KV1.3, KV2.1, KV3.1, and KV11.1), NaV (NaV1.2, NaV1.4, NaV1.5, and NaV1.7), as well as CaV1.2 channels [1].
In vivo	SKA-121 is relatively well soluble (logP=1.79) and can potentially be added to drinking water in animal experiments, it orally is also administered, and find that it has an oral availability of roughly 25%. SKA-121 has a short half-life (~20 minutes), and plasma decay is extremely rapid (21.3±2.4 μM at 5 minutes; 483±231 nM at 1 hour and 53±44 nM at 4 hours). SKA-121 can be used as a new KCa _{3.1} selective pharmacological tool compound despite its relatively short half-life in mice. SKA-121 (100 mg/kg i.p.) significantly lowers mean arterial blood pressure in normotensive and hypertensive wild-type but not in KCa _{3.1} ^{-/-} mice in blood pressure telemetry experiments. A lower dose of SKA-121(30 mg/kg) does not produce significant alterations in the MAP [1].

Solubility Information

Solubility	DMSO: 42.86 mg/mL (216.22 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	5.0449 mL	25.2245 mL	50.449 mL
5 mM	1.009 mL	5.0449 mL	10.0898 mL
10 mM	0.5045 mL	2.5224 mL	5.0449 mL
50 mM	0.1009 mL	0.5045 mL	1.009 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

Coleman N, et al. New positive Ca²⁺-activated K⁺ channel gating modulators with selectivity for KCa3.1. *Mol Pharmacol*. 2014 Sep;86(3):342-57.

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