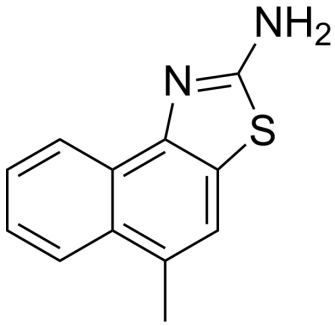
SKA-111

Cat. No.:	HY-100418
CAS No.:	1369170-24-0
Molecular Formula:	$C_{12}H_{10}N_2S$
Molecular Weight:	214.29
Target:	Potassium Channel
Pathway:	Membrane Transporter/Ion Channel
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (466.66 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	4.6666 mL	23.3329 mL	46.6657 mL
	5 mM	0.9333 mL	4.6666 mL	9.3331 mL
	10 mM	0.4667 mL	2.3333 mL	4.6666 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: ≥ 2.5 mg/mL (11.67 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

SKA-111 is a selective activator of potassium phannel K_{Ca} 3.1 , evokes K_{Ca} 3.1 membrane hyperpolarization in porcine endothelial cell. SKA-111 is capable of improving Bradykinin (HY-P0206)-induced coronary dilations in the isolated rat heart and can be used for cardiovascular disease research[1].

In Vitro

SKA-111 (1 μM, 5 min) evokes K_{Ca} 3.1 membrane hyperpolarization in porcine endothelial cell[1].
SKA-111 (1 μM, 5 min) induces significantly augmented the Bradykinin-induced endothelium-derived hyperpolarization (EDH)-type relaxation in large porcine coronary arteries (PCA) [1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

SKA-111 (1 μM for cardiac perfusion) improves Bradykinin (HY-P0206)-induced coronary dilations in the isolated rat heart[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Langendorff in rat hearts [1]
Dosage:	1 μM
Administration:	Cardiac perfusion
Result:	Potentiated significantly the fall in coronary perfusion pressure (CPP) induced by 1 nM BK in the presence of the vasoconstrictor in isolated rat hearts.

REFERENCES

[1]. Oliván-Viguera A, et.al. Vascular Reactivity Profile of Novel KCa 3.1-Selective Positive-Gating Modulators in the Coronary Vascular Bed. Basic Clin Pharmacol Toxicol. 2016 Aug;119(2):184-92.

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