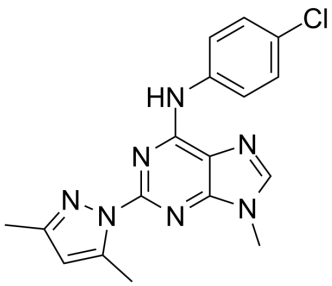
NS13001

Cat. No.:	HY-102070
CAS No.:	1063331-94-1
Molecular Formula:	$C_{17}H_{16}ClN_7$
Molecular Weight:	353.81
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 (282.64 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.8264 mL	14.1319 mL	28.2638 mL
	5 mM	0.5653 mL	2.8264 mL	5.6528 mL
	10 mM	0.2826 mL	1.4132 mL	2.8264 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: ≥ 0.83 mg/mL (2.35 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: 0.83 mg/mL (2.35 mM); Suspended solution; Need ultrasonic
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 0.83 mg/mL (2.35 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

NS13001 is a potent, selective, orally active allosteric positive modulator of SK channels (small conductance calcium-activated potassium channels). The EC_{50}s are 1.8 and 0.14 μM for SK2 and SK3, respectively. NS13001 holds promise as a potential therapeutic agent for treatment of spinocerebellar ataxia type 2 (SCA2) and possibly other cerebellar ataxias[1].

IC_{50} & Target

EC50: 1.8 μM (SK2), 0.14 μM (SK3)[1]

REFERENCES

[1]. Kasumu AW, et al. Selective positive modulator of calcium-activated potassium channels exerts beneficial effects in a mouse model of spinocerebellar ataxia type 2. Chem Biol. 2012 Oct 26;19(10):1340-53.

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