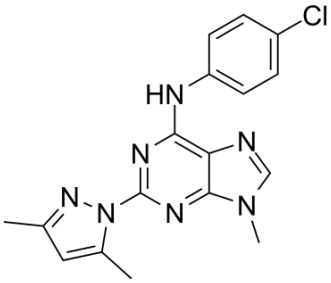
# NS13001

| | |
|---|---|
| **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<br>4°C 2 years<br>In solvent -80°C 6 months<br>-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.



Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA