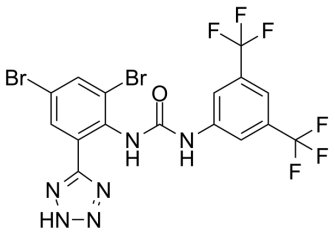
NS5806

Cat. No.:	HY-108588
CAS No.:	426834-69-7
Molecular Formula:	$C_{16}H_8Br_2F_6N_6O$
Molecular Weight:	574.07
Target:	Potassium Channel
Pathway:	Membrane Transporter/Ion Channel
Storage:	Powder -20°C 3 years In solvent -80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 250 mg/mL (435.49 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	1.7419 mL	8.7097 mL	17.4195 mL
	5 mM	0.3484 mL	1.7419 mL	3.4839 mL
	10 mM	0.1742 mL	0.8710 mL	1.7419 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (3.62 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

NS5806, a potent potassium current activator, increases K_V4.3/KChIP2 peak current amplitudes with an EC_{50} of 5.3 μM. NS5806 slows K_V4.3 and K_V4.2 current dacay in channel complexes containing KChIP2[1].

IC_{50} & Target

IC50: 5.3 nM (K_V4.3)[1]

In Vitro

NS5806 (10 μM) induces a 65% increase of KV4.3/KChIP2/DPP6 peak current amplitudes concentration-dependently and the time course of inactivation (τ) is slowed with an EC_{50} value of 25.4 μM in CHO-K1 cells[1].
NS5806 activates canine transient outward potassium current (Ito) with an IC_{50} of 40.7 nM and an EC_{50} of 1.6 nM for inhibition and stimulation on rabbit, respectively[2].
NS5806 (10-100 nM) has concentration-dependent effects on ventricular and atrial Ito[2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Cheng H, et al. Differential responses of rabbit ventricular and atrial transient outward current (Ito) to the Itomodulator NS5806. Physiol Rep. 2017 Mar;5(5). pii: e13172.

[2]. Lundby A, et al. Effect of the I(to) activator NS5806 on cloned K_V4 channels depends on the accessory protein KChIP2. Br J Pharmacol. 2010 Aug;160(8):2028-44. doi: 10.1111/j.1476-5381.2010.00859.x.

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