TRAM-39

Cat. No.: HY-103308

CAS No.: 197525-99-8

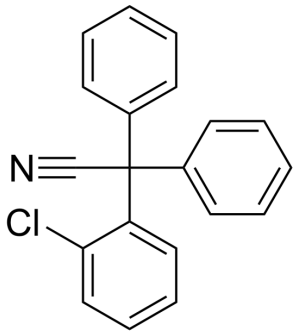
Molecular Formula: $C_{20}H_{14}ClN$

Molecular Weight: 303.78

Target: Potassium Channel

Pathway: Membrane Transporter/Ion Channel

Storage: 4°C, protect from light
* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 50 mg/mL (164.59 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	3.2919 mL	16.4593 mL	32.9186 mL
	5 mM	0.6584 mL	3.2919 mL	6.5837 mL
	10 mM	0.3292 mL	1.6459 mL	3.2919 mL

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

BIOLOGICAL ACTIVITY

Description

TRAM-39 is a selective blocker of intermediate conductance Ca2+-activated K+ (IK_{Ca}) channels. TRAM-39 inhibits KCa3.1 channel with an IC_{50} value of 60 nM. TRAM-39 can be used for the research of ataxia, epilepsy, memory disorders, schizophrenia and Parkinson's disease[1][2][3][4].

IC_{50} & Target

IC50: 60 nM (KCa3.1 channel)[4]

In Vitro

TRAM-39 (1 μM) reduces the peak amplitude of gKCa2 in sympathetic LAH neurons (mean percentage change 56%) in BAE cells[2].

TRAM-39 (200 nM) diminishes lipopolysaccharide (LPS)-induced cryptdin release from paneth cells[3].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

TRAM-39 (1 μM; adds to the perfusate) fully blocks all IK_{Ca} channels in multicellular preparations[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Davies PJ, et al. Different types of potassium channels underlie the long afterhyperpolarization in guinea-pig sympathetic and enteric neurons. Auton Neurosci. 2006 Jan 30;124(1-2):26-30.

[2]. Burnham MP, et al. Impaired small-conductance Ca2+-activated K+ channel-dependent EDHF responses in Type II diabetic ZDF rats. Br J Pharmacol. 2006 Jun;148(4):434-41.

[3]. Ayabe T, et al. Modulation of mouse Paneth cell alpha-defensin secretion by mIKCa1, a Ca2+-activated, intermediate conductance potassium channel. J Biol Chem. 2002 Feb 1;277(5):3793-800.

[4]. Wulff H, et al. Modulators of small- and intermediate-conductance calcium-activated potassium channels and their therapeutic indications. Curr Med Chem. 2007;14(13):1437-57.

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