GSK1702934A

Cat. No.: HY-111098

CAS No.: 924377-85-5

Molecular Formula: $C_{22}H_{25}N_3O_2S$

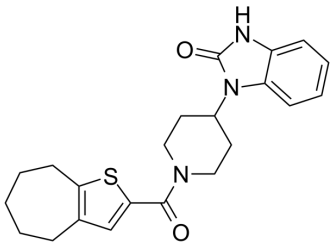
Molecular Weight: 395.52

Target: TRP Channel

Pathway: Membrane Transporter/Ion Channel; Neuronal Signaling

Storage:

Powder	-20°C	3 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (252.83 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	2.5283 mL	12.6416 mL	25.2832 mL
	5 mM	0.5057 mL	2.5283 mL	5.0566 mL
	10 mM	0.2528 mL	1.2642 mL	2.5283 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 (6.32 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (6.32 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (6.32 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

GSK1702934A is a selective TRPC3 agonist. GSK1702934A modulates cardiac contractility and f arrhythmogenesis by activation of TRPC3[1][2].

IC_{50} & Target

TRPC3

In Vitro

GSK1702934A is able to induce TRPC3/6-currents in HEK293 cells transduced with recombinant human TRPC3/6 with an EC_{50} of 0.08 mM and 0.44 mM, respectively[1].
GSK1702934A induces a transient, non-selective conductance and prolonged action potentials in TRPC3-overexpressing

	myocytes but not in wild-type myocytes[2]. GSK1702934A substantially promotes NCX currents in TRPC3-overexpressing myocytes[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	GSK1702934A (0.3-3 mg/kg; i.v.) transiently increases blood pressure by 15 ~ 35 mmHg in conscious Sprague Dawley rats[3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. de la Cruz GG, et al. Intensified Microwave-Assisted N-Acylation Procedure - Synthesis and Activity Evaluation of TRPC3 Channel Agonists with a 1,3-Dihydro-2H-benzo[d]imidazol-2-one Core. Synlett. 2017 Apr;28(6):695-700.

[2]. Doleschal B, et al. TRPC3 contributes to regulation of cardiac contractility and arrhythmogenesis by dynamic interaction with NCX1. Cardiovasc Res. 2015 Apr 1;106(1):163-73.

[3]. Xu, X., et al. Schnackenberg, C. G. Characterization of Small Molecule TRPC3 and TRPC6 agonist and Antagonists. Biophysical Journal, 2013. 104(2), 454a.

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