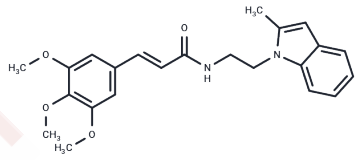
Data Sheet (Cat.No.T5482)

TG4-155

Chemical Properties



CAS No. : 1164462-05-8

Formula: C23H26N2O4

Molecular Weight: 394.46

Appearance: Solid

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	TG4-155 is a brain penetrant EP2 antagonist (KB = 2.4 nM) that is over 1000-fold less effective at EP4 (KB = 11.4 μM) and a panel of other receptors and channels
Targets(IC50)	Prostaglandin Receptor
In vitro	TG4-155 is a brain penetrant EP2 antagonist (KB = 2.4 nM) that is over 1000-fold less effective at EP4 (KB = 11.4 μM) and a panel of other receptors and channels[1].
In vivo	TG4-155 significantly reduces neurodegeneration in a mouse model of status epilepticus, induced by pilocarpine. It inhibits proliferation, invasion, and inflammatory cytokine expression in cancer cells treated with butaprost[2].
Cell Research	Cytotoxicity of TG4-155 was examined with the CellTiter-Glo Luminescent Cell Viability Assay by measuring cellular ATP level, which correlates with cell viability.?Briefly, C6G cells were plated in 384-well plates at 2,000 cells/well in 25 μl DMEM plus test compound and incubated for 2 days.?CellTiter-Glo reagent (25 μl) was then added to each well.?The contents were mixed for 2 minutes on an orbital shaker to induce cell lysis and incubated at room temperature for 10 minutes.?Relative viability is proportional to luminescence intensity as measured by a microplate reader with an integration time of 1 second[2].
Animal Research	C57BL/6 mice (8 12 wk old) were injected with pilocarpine (280 mg/kg, i.p.) to induce status epilepticus (SE). SE was allowed for 1 h and terminated by pentobarbital (30 mg/kg, i.p.). Mice were then randomized by assignment to a random number stream and received two doses of vehicle or TG4-155 (5 mg/kg, i.p.) at 1 and 12 h after SE termination. Mice were euthanized under deep isoflurane anesthesia 24 h after SE and brains were collected for histology[1].

Solubility Information

Solubility	DMSO: 125 mg/mL (316.89 mM),Sonication is recommended. 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 4 mg/mL (10.14 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.5351 mL	12.6756 mL	25.3511 mL
5 mM	0.507 mL	2.5351 mL	5.0702 mL
10 mM	0.2535 mL	1.2676 mL	2.5351 mL
50 mM	0.0507 mL	0.2535 mL	0.507 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Reference

Jiang J , Ganesh T , Du Y , et al. Small molecule antagonist reveals seizure-induced mediation of neuronal injury by prostaglandin E2 receptor subtype EP2[J]. Proceedings of the National Academy of Sciences, 2012, 109(8):3149-3154.

Jiang J , Dingledine R . Role of Prostaglandin Receptor EP2 in the Regulations of Cancer Cell Proliferation, Invasion, and Inflammation[J]. Journal of Pharmacology and Experimental Therapeutics, 2012, 344(2):360-367.