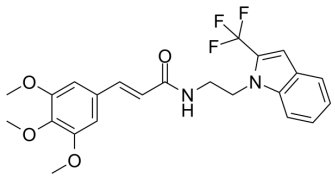
TG6-10-1

Cat. No.:	HY-16978
CAS No.:	1415716-58-3
Molecular Formula:	$C_{23}H_{23}F_3N_2O_4$
Molecular Weight:	448.43
Target:	5-HT Receptor; Prostaglandin Receptor
Pathway:	GPCR/G Protein; Neuronal Signaling
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 2 years -20°C 1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (223.00 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.2300 mL	11.1500 mL	22.3000 mL
	5 mM	0.4460 mL	2.2300 mL	4.4600 mL
	10 mM	0.2230 mL	1.1150 mL	2.2300 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: ≥ 3 mg/mL (6.69 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 3 mg/mL (6.69 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

TG6-10-1 is an EP2 antagonist, shows low-nanomolar antagonist activity against only EP2, >300-fold selectivity over human EP3, EP4, and IP receptors, 100-fold selectivity over EP1 receptors[1].

IC_{50} & Target

EP2[1]

In Vitro

TG6-10-1 robustly blocks prostaglandin E2 (PGE2) (10 μM)-induced cAMP accumulation in a concentration-dependent manner in SH-SY5Y cells[2].

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

In Vivo

TG6-10-1 (5 mg/kg; i.p.; 4-30 hours) improves survival, accelerates recovery of lost weight, and improves functional recovery

following status epilepticus (SE) [1].

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

Animal Model:	C57BL/6 mice (pilocarpine-induced SE)[1]
Dosage:	5 mg/kg
Administration:	Intraperitoneal injection; 4, 21, 30 hours
Result:	A significant increase in survival and accelerating the recovery of lost weight in post-SE mice.

CUSTOMER VALIDATION

- Nat Immunol. 2023 May;24(5):767-779.
- Nat Cell Biol. 2021 Jul;23(7):796-807.
- J Cell Physiol. 2018 Nov;233(11):8984-8995.
- Neuropharmacology. 2019 May 1;149:149-160.
- Sci Rep. 2017 Aug 25;7(1):9459.

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REFERENCES

[1]. Jiang J, et al. Inhibition of the prostaglandin receptor EP2 following status epilepticus reduces delayed mortality and brain inflammation. Proc Natl Acad Sci U S A. 2013 Feb 26;110(9):3591-3596.

[2]. Kang X, et al. Cyclooxygenase-2 contributes to oxidopamine-mediated neuronal inflammation and injury via the prostaglandin E2 receptor EP2 subtype. Sci Rep. 2017 Aug 25;7(1):9459.

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