RX 801077 hydrochloride

Cat. No.: HY-100904

CAS No.: 89196-95-2

Molecular Formula: $C_{11}H_{11}ClN_2O$

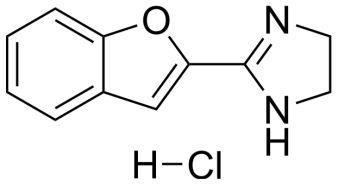
Molecular Weight: 222.67

Target: Imidazoline Receptor

Pathway: Neuronal Signaling

Storage: 4°C, sealed storage, away from moisture

* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 20.83 mg/mL (93.55 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	4.4910 mL	22.4548 mL	44.9095 mL
	5 mM	0.8982 mL	4.4910 mL	8.9819 mL
	10 mM	0.4491 mL	2.2455 mL	4.4910 mL

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

BIOLOGICAL ACTIVITY

Description

RX 801077 hydrochloride (2 BFI) is a selective imidazoline I2 receptor (I2R) agonist with a K_i value of 70.1 nM. RX 801077 hydrochlorideshows anti-inflammation and neuroprotection. RX 801077 hydrochloride has the potential for the research of traumatic brain injury (TBI)[1][2].

IC_{50} & Target

K_i: 70.1 nM (imidazoline I2 receptor)[1]

In Vivo

RX 801077 hydrochloride (5, 10, 20 mg/kg; i.p.; twice daily for 3 days) inhibits NLRP3 inflammasome-induced inflammation and necroptosis in a rat model of traumatic brain injury[2].

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

Animal Model:	280-300 g, Male adult Sprague-Dawley rats (TBI model)[2]
Dosage:	5, 10, 20 mg/kg
Administration:	I.p.; twice daily for 3 days

Result:	Attenuated neurological deficits, brain edema, BBB permeability and cortical tissue loss in a rat model of TBI, reduced microglial activation, neutrophil infiltration, and proinflammatory cytokine IL-1β secretion, reduced the expression of RIP1 and RIP3 in neurons in the pericontusional cortex.

REFERENCES

[1]. Carpéné C, et al. Inhibition of amine oxidase activity by derivatives that recognize imidazoline I2 sites. J Pharmacol Exp Ther. 1995 Feb;272(2):681-8.

[2]. Ni H, et al. 2-BFI Provides Neuroprotection Against Inflammation and Necroptosis in a Rat Model of Traumatic Brain Injury. Front Neurosci. 2019 Jun 26;13:674.

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