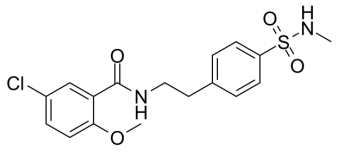
JC124

Cat. No.:	HY-120007
CAS No.:	1638611-48-9
Molecular Formula:	$C_{17}H_{19}ClN_2O_4S$
Molecular Weight:	382.86
Target:	NOD-like Receptor (NLR)
Pathway:	Immunology/Inflammation
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 250 mg/mL (652.98 mM; ultrasonic and adjust pH to 3 with HCl)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.6119 mL	13.0596 mL	26.1192 mL
	5 mM	0.5224 mL	2.6119 mL	5.2238 mL
	10 mM	0.2612 mL	1.3060 mL	2.6119 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: ≥ 2.08 mg/mL (5.43 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: 2.08 mg/mL (5.43 mM); Suspended solution; Need ultrasonic
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (5.43 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

JC124 is a specific NLRP3 inflammasome inhibitor. JC124 has anti-inflammatory and neuroprotective effects[1].

In Vitro

JC124 shows selective inhibition of NLRP3 inflammasome formation and activation of caspase-1, and reduction of IL-1β both in vitro[1].

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

In Vivo

JC124 (100 mg/kg; i.p.; 4 doses; 30 min post-injury, 6, 24, and 30 h after TBI) treatment significantly decreases the number of

injury-induced degenerating neurons, inflammatory cell response in the injured brain, and cortical lesion volume. JC124 also significantly reduces protein expression levels of NLRP3, ASC, IL-1 beta, TNFα, iNOS, and caspase-1[1].

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

Animal Model:	Adult male Sprague-Dawley rats (3-4-months-old) bearing traumatic brain injury (TBI)[1]
Dosage:	100 mg/kg
Administration:	i.p.; 4 doses; 30 min post-injury, 6, 24, and 30 h after TBI
Result:	Significantly decreased the number of injury-induced degenerating neurons, inflammatory cell response in the injured brain, and cortical lesion volume.

REFERENCES

[1]. Ram Kuwar, et al. A novel small molecular NLRP3 inflammasome inhibitor alleviates neuroinflammatory response following traumatic brain injury. J Neuroinflammation. 2019 Apr 11;16(1):81.

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