Emlenoflast sodium

Cat. No.: HY-137245A

CAS No.: 2380032-29-9

Molecular Formula: $C_{19}H_{23}N_4NaO_3S$

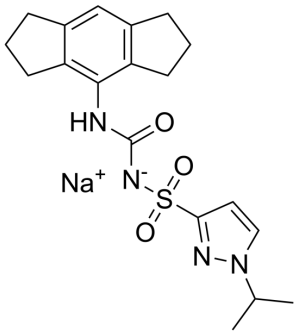
Molecular Weight: 410.47

Target: NOD-like Receptor (NLR)

Pathway: Immunology/Inflammation

Storage: -20°C, sealed storage, away from moisture

* The compound is unstable in solutions, freshly prepared is recommended.



SOLVENT & SOLUBILITY

In Vitro

DMSO : 240 mg/mL (584.70 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.4362 mL	12.1812 mL	24.3623 mL
	5 mM	0.4872 mL	2.4362 mL	4.8725 mL
	10 mM	0.2436 mL	1.2181 mL	2.4362 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: ≥ 6 mg/mL (14.62 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 6 mg/mL (14.62 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 6 mg/mL (14.62 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Emlenoflast (MCC7840) sodium, a sulfonylurea, is a potent and selective inhibitor of NLRP3 inflammasome, with an IC_{50} of <100 nM. Emlenoflast sodium can be used for the research of inflammatory diseases[1][2].

IC_{50} & Target

NLRP3 inflammasome
<100 nM (IC_{50})

In Vitro

Emlenoflast, a MCC950 analogue, shows useful activity in the inhibition of activation of the NLRP3 inflammasome, with an IC_{50} of <100 nM[1].

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

In Vivo

Emlenoflast (4 mg/kg; i.v.) exhibits the half-life (3.39 h), $AUC_{0\text{-last}}$ (107097 ng?h/mL) and CL (0.621 mL/min/kg) in mice[2].
?Emlenoflast (20 mg/kg; p.o.) exhibits the oral bioavailability (67.2%), C_{max} (60467 ng/mL) and half-life (5.02 h) in mice[2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Male C57BL/6 mice (7-9 weeks)[2]
Dosage:	4 mg/kg for i.v. and 20 mg/kg for p.o. (Pharmacokinetic Analysis)
Administration:	A single intravenousbolus or oral gavage
Result:	I.v.: $t_{1/2}$=3.39 h; $AUC_{0\text{-last}}$=107097 ng•h/mL; CL=0.621 mL/min/kg. P.o.: F=67.2%; C_{max}=60467 ng/mL; $t_{1/2}$=5.02 h.

REFERENCES

[1]. El-Sharkawy LY, et, al. Inhibiting the NLRP3 Inflammasome. Molecules. 2020 Nov 25;25(23):5533.

[2]. O'neill L, et, al. Sulfonylureas and related compounds and use of same. WO2016131098A1.

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