Emlenoflast

Cat. No.: HY-137245

CAS No.: 1995067-59-8

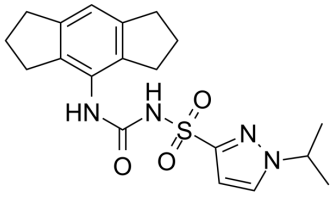
Molecular Formula: $C_{19}H_{24}N_4O_3S$

Molecular Weight: 388.48

Target: NOD-like Receptor (NLR)

Pathway: Immunology/Inflammation

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 : 125 mg/mL (321.77 mM; Need ultrasonic)

Preparing Stock Solutions	Concentration / Solvent / Mass	1 mg	5 mg	10 mg
	1 mM	2.5741 mL	12.8707 mL	25.7414 mL
	5 mM	0.5148 mL	2.5741 mL	5.1483 mL
	10 mM	0.2574 mL	1.2871 mL	2.5741 mL

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

BIOLOGICAL ACTIVITY

Description

Emlenoflast (MCC7840), a sulfonylurea, is a potent and selective inhibitor of NLRP3 inflammasome, with an IC_{50} of <100 nM. Emlenoflast 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.

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