INF4E

Cat. No.: HY-121988

CAS No.: 88039-46-7

Molecular Formula: $C_{12}H_{13}ClO_3$

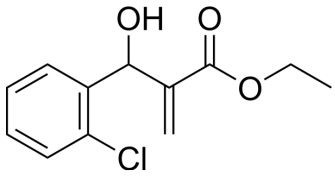
Molecular Weight: 240.68

Target: NOD-like Receptor (NLR)

Pathway: Immunology/Inflammation

Storage:

Pure form	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 100 mg/mL (415.49 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	4.1549 mL	20.7745 mL	41.5489 mL
5 mM	0.8310 mL	4.1549 mL	8.3098 mL
10 mM	0.4155 mL	2.0774 mL	4.1549 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: ≥ 2.5 mg/mL (10.39 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (10.39 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (10.39 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

INF4E is a potent NLRP3 inflammasome inhibitor. INF4E inhibits caspase-1 and NLRP3 ATPase activities. INF4E shows protection against the IR-induced myocardial injury and dysfunction[1][2].

IC_{50} & Target

NLRP3

In Vitro

INF4E (compound 9) preventes both ATP- and nigericin-triggered pyroptosis of human THP-1 cells in a time- and

	concentration-dependent manner[3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	INF4E significantly reduces the in infarct size and lactate dehydrogenase release and improvement in postischemic left ventricular pressure[1]. INF4E attenuates the formation of NLRP3 inflammasome complex was induced by myocardial IR (ischemia/reperfusion) in a time-dependent way[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Shi Y, et al. NLRP3 inflammasome inhibitor INF39 attenuated NLRP3 assembly in macrophages. Int Immunopharmacol. 2021 Mar;92:107358.

[2]. Mezzaroma E,et al. NLRP3 Inflammasome Inhibitors in Cardiovascular Diseases. Molecules. 2021 Feb 12;26(4):976.

[3]. occo M, et al. Electrophilic warhead-based design of compounds preventing NLRP3 inflammasome-dependent pyroptosis. J Med Chem. 2014 Dec 26;57(24):10366-82.

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