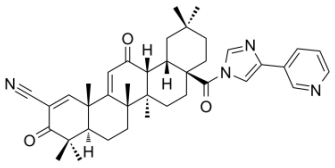
CDDO-3P-Im

Cat. No.:	HY-135953
CAS No.:	1883650-95-0
Molecular Formula:	$C_{39}H_{46}N_4O_3$
Molecular Weight:	618.81
Target:	Apoptosis
Pathway:	Apoptosis
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 (404.00 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	1.6160 mL	8.0800 mL	16.1600 mL
	5 mM	0.3232 mL	1.6160 mL	3.2320 mL
	10 mM	0.1616 mL	0.8080 mL	1.6160 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (3.36 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

CDDO-3P-Im is an analogue of CDDO-Imidazolide with chemopreventive effect. CDDO-3P-Im can reduce the size and the severity of the lung tumors in mouse lung cancer model[1]. CDDO-3P-Im is a orally active necroptosis inhibitor that can be used for the research of ischemia/reperfusion (I/R)[2].

In Vitro

CDDO-3P-Im (30-100 nM; 4 days) induces differentiation of U937 cells at 30 nM[1].
CDDO-3P-Im suppresses NO production in RAW264.7 cells with an IC_{50} of 4.3 nM[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Apoptosis Analysis[1]

Cell Line:	U937 cells
Concentration:	30 nM, 100 nM

Incubation Time:	4 days
Result:	Induced differentiation of U937 cells at 30 nM.

In Vivo

CDDO-3P-Im is more stable than CDDO-Im in pharmacokinetic studies[1].

CDDO-3P-Im significantly elevates heme oxygenase-1 (HO-1) and quinone reductase (NQO1) mRNA and protein levels in various mouse tissues in vivo[1].

CDDO-3P-Im (50-200 mg/kg; diet; for 16 weeks) decreases the number, the size and the severity of tumors in A/J mice[1].

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

Animal Model:	Seven week-old female A/J mice[1]
Dosage:	50 mg/kg, 200 mg/kg
Administration:	Diet; for 16 weeks
Result:	Decreased the number, the size and the severity of tumors.

REFERENCES

[1]. Cao M , et al. Novel synthetic pyridyl analogues of CDDO-Imidazolide are useful new tools in cancer prevention. Pharmacol Res. 2015 Oct;100:135-47.

[2]. Yuanyuan Wang, et al. Discovery of bardoxolone derivatives as novel orally active necroptosis inhibitors. Eur J Med Chem. 2020 Nov 21;113030.

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