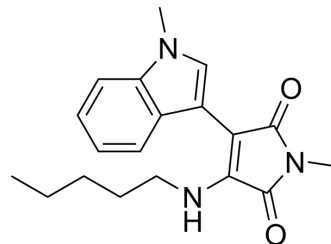


## IM-54

Cat. No.:	HY-108351
CAS No.:	861891-50-1
Molecular Formula:	C <sub>19</sub> H <sub>23</sub> N <sub>3</sub> O <sub>2</sub>
Molecular Weight:	325.4
Target:	Necroptosis
Pathway:	Apoptosis
Storage:	-20°C, stored under nitrogen * In solvent : -80°C, 6 months; -20°C, 1 month (stored under nitrogen)



### SOLVENT & SOLUBILITY

In Vitro	DMSO : 50 mg/mL (153.66 mM; Need ultrasonic)				
		Solvent Concentration	Mass		
	Preparing Stock Solutions		1 mg	5 mg	10 mg
		1 mM	3.0731 mL	15.3657 mL	30.7314 mL
		5 mM	0.6146 mL	3.0731 mL	6.1463 mL
	10 mM	0.3073 mL	1.5366 mL	3.0731 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 (7.68 mM); Clear solution				

### BIOLOGICAL ACTIVITY

Description	IM-54 is a selective inhibitor of oxidative stress-induced necrosis. IM-54 shows potent inhibitory activity against H <sub>2</sub> O <sub>2</sub> -induced necrosis. IM-54 acts as a potential cardioprotective agent and biological tool for investigating the molecular mechanisms of cell death <sup>[1][2]</sup> .
In Vitro	IM-54 selectively inhibits oxidative stress-induced necrosis, but it does not inhibit apoptosis induced by various anticancer drugs or Fas ligand, or necroptosis <sup>[1]</sup> . IM-54 shows strong inhibition of H <sub>2</sub> O <sub>2</sub> -induced necrosis, with an IC <sub>50</sub> of 0.25 μM in HL-60 cells <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### REFERENCES

[1]. Kosuke Dodo, et al. Indolylmaleimide Derivative IM-17 Shows Cardioprotective Effects in Ischemia-Reperfusion Injury. ACS Med Chem Lett. 2018 Mar 8; 9(3): 182-187.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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