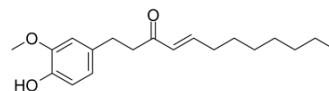


## [8]-Shogaol

Cat. No.:	HY-N2435		
CAS No.:	36700-45-5		
Molecular Formula:	C <sub>19</sub> H <sub>28</sub> O <sub>3</sub>		
Molecular Weight:	304.42		
Target:	COX; Apoptosis		
Pathway:	Immunology/Inflammation; Apoptosis		
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 : 125 mg/mL (410.62 mM; Need ultrasonic)					
	Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg
		1 mM		3.2849 mL	16.4247 mL	32.8493 mL
		5 mM		0.6570 mL	3.2849 mL	6.5699 mL
		10 mM		0.3285 mL	1.6425 mL	3.2849 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: ≥ 6.25 mg/mL (20.53 mM); Clear solution					
	2. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 6.25 mg/mL (20.53 mM); Clear solution					

### BIOLOGICAL ACTIVITY

Description	[8]-Shogaol, one of the pungent phenolic compounds in ginger, exhibits anti-platelet activity (IC <sub>50</sub> =5 μM) and inhibits COX-2 (IC <sub>50</sub> =17.5 μM). [8]-Shogaol induces apoptosis in human leukemia cells <sup>[1][2][3][4]</sup> .
IC <sub>50</sub> & Target	COX-2 17.5 μM (IC <sub>50</sub> )

### REFERENCES

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[1]. Shieh PC, et al. Induction of apoptosis by [8]-shogaol via reactive oxygen species generation, glutathione depletion, and caspase activation in human leukemia cells. *J Agric Food Chem*. 2010 Mar 24;58(6):3847-54.

[2]. van Breemen RB, et al. Cyclooxygenase-2 inhibitors in ginger (*Zingiber officinale*). *Fitoterapia*. 2011 Jan;82(1):38-43.

[3]. Nurtjahja-Tjendraputra E, et al. Effective anti-platelet and COX-1 enzyme inhibitors from pungent constituents of ginger. *Thromb Res*. 2003;111(4-5):259-65.

[4]. Shieh PC, et al. Induction of apoptosis by [8]-shogaol via reactive oxygen species generation, glutathione depletion, and caspase activation in human leukemia cells. *J Agric Food Chem*. 2010 Mar 24;58(6):3847-54.

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

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