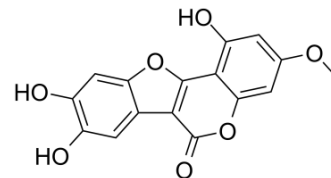


## Wedelolactone

Cat. No.:	HY-N0551		
CAS No.:	524-12-9		
Molecular Formula:	C <sub>16</sub> H <sub>10</sub> O <sub>7</sub>		
Molecular Weight:	314.25		
Target:	Caspase; Lipoyxygenase; Apoptosis		
Pathway:	Apoptosis; Metabolic Enzyme/Protease		
Storage:	Powder	-20°C	3 years
	In solvent	-80°C	6 months
		-20°C	1 month



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 125 mg/mL (397.77 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	3.1822 mL	15.9109 mL	31.8218 mL
	5 mM	0.6364 mL	3.1822 mL	6.3644 mL
	10 mM	0.3182 mL	1.5911 mL	3.1822 mL

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

#### In Vivo

- Add each solvent one by one: **10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline**  
Solubility: ≥ 2.08 mg/mL (6.62 mM); Clear solution
- Add each solvent one by one: **10% DMSO >> 90% corn oil**  
Solubility: ≥ 2.08 mg/mL (6.62 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

Wedelolactone, a natural product from *Ecliptae herba*, suppresses LPS-induced **caspase-11** expression by directly inhibiting the IKK Complex<sup>[1]</sup>. Wedelolactone inhibits **5-lipoxygenase (5-Lox)** (IC<sub>50</sub>~2.5 μM) activity by an oxygen radical scavenging mechanism. Wedelolactone induces caspase-dependent **apoptosis** in prostate cancer cells via downregulation of PKCε without inhibiting Akt<sup>[2]</sup>. Anti-cancer, anti-inflammatory, and antioxidant activities<sup>[3]</sup>.

#### IC<sub>50</sub> & Target

Caspase-11	5-LOX 2.5 μM (IC <sub>50</sub> )	Apoptosis
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## CUSTOMER VALIDATION

- Drug Dev Res. 2020 Jun 7.
- J Int Med Res. 2020 Aug;48(8):300060520949767.

See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

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## REFERENCES

- [1]. Kobori M, et al. Wedelolactone suppresses LPS-induced caspase-11 expression by directly inhibiting the IKK complex. Cell Death Differ. 2004 Jan;11(1):123-30.
- [2]. Sarveswaran S, et al. Wedelolactone, a medicinal plant-derived coumestan, induces caspase-dependent apoptosis in prostate cancer cells via downregulation of PKC $\epsilon$  without inhibiting Akt. Int J Oncol. 2012 Dec;41(6):2191-9.
- [3]. Liu YQ, et al. Wedelolactone enhances osteoblastogenesis by regulating Wnt/ $\beta$ -catenin signaling pathway but suppresses osteoclastogenesis by NF- $\kappa$ B/c-fos/NFATc1 pathway. Sci Rep. 2016 Aug 25;6:32260.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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