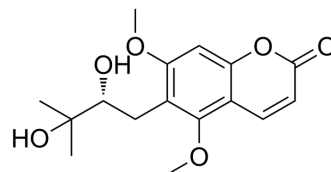


## Toddalolactone

<b>Cat. No.:</b>	HY-N0518		
<b>CAS No.:</b>	483-90-9		
<b>Molecular Formula:</b>	C <sub>16</sub> H <sub>20</sub> O <sub>6</sub>		
<b>Molecular Weight:</b>	308.33		
<b>Target:</b>	PAI-1		
<b>Pathway:</b>	Metabolic Enzyme/Protease		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 50 mg/mL (162.16 mM; Need ultrasonic)  
 H<sub>2</sub>O : < 0.1 mg/mL (ultrasonic) (insoluble)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	3.2433 mL	16.2164 mL	32.4328 mL
	5 mM	0.6487 mL	3.2433 mL	6.4866 mL
	10 mM	0.3243 mL	1.6216 mL	3.2433 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: ≥ 2.5 mg/mL (8.11 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
 Solubility: ≥ 2.5 mg/mL (8.11 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
 Solubility: ≥ 2.5 mg/mL (8.11 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

Toddalolactone, a main component of *Toddalia asiatica*, inhibits the activity of recombinant human plasminogen activator inhibitor-1 (PAI-1), with an IC<sub>50</sub> value of 37.31 μM<sup>[1]</sup>.

#### In Vitro

Toddalolactone, a natural coumarin, inhibits PAI-1 activity by preventing the formation of a stable PAI-1/uPA covalent complex, suggesting that the inhibitory effect of Toddalolactone may be due to the interference of close contact between plasminogen activator and the active center of PAI-1<sup>[1]</sup>.

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

## CUSTOMER VALIDATION

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- Research Square Preprint. 2022 Jan.

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

## REFERENCES

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[1]. Yu B, et al. Inhibition of PAI-1 Activity by Toddalolactone as a Mechanism for Promoting Blood Circulation and Removing Stasis by Chinese Herb Zanthoxylum nitidum var. tomentosum. Front Pharmacol. 2017 Jul 21;8:489.

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

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