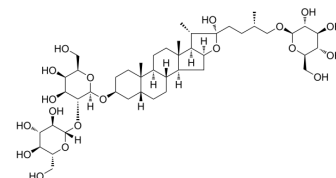


## Timosaponin BII

<b>Cat. No.:</b>	HY-N0812		
<b>CAS No.:</b>	136656-07-0		
<b>Molecular Formula:</b>	C <sub>45</sub> H <sub>76</sub> O <sub>19</sub>		
<b>Molecular Weight:</b>	921.07		
<b>Target:</b>	Amyloid-β		
<b>Pathway:</b>	Neuronal Signaling		
<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 : 100 mg/mL (108.57 mM; Need ultrasonic)  
 H<sub>2</sub>O : 100 mg/mL (108.57 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	1.0857 mL	5.4285 mL	10.8569 mL
	5 mM	0.2171 mL	1.0857 mL	2.1714 mL
	10 mM	0.1086 mL	0.5428 mL	1.0857 mL

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

#### In Vivo

- Add each solvent one by one: PBS  
Solubility: 50 mg/mL (54.28 mM); Clear solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
Solubility: ≥ 2.5 mg/mL (2.71 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
Solubility: ≥ 2.5 mg/mL (2.71 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
Solubility: ≥ 2.5 mg/mL (2.71 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

Timosaponin BII (Prototimosaponin A III) is a steroid saponin found in the rhizomes of *Anemarrhena asphodeloides*. Timosaponin BII has neuronal protective, anti-inflammatory and antioxidant activities<sup>[1][2]</sup>.

#### In Vitro

Timosaponin BII is a steroidal glycoside separated from Zhi Mu, is found to have the inhibitory activity against the

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	<p>proliferation of HL-60 (leukemic), HeLa (cervix), HepG2 and Bel-7402 (liver), HT-29 (colon), and MDA-MB-468 (breast) human carcinoma cell lines with an IC<sub>50</sub> value of 15.5 µg/mL in the HL-60 cells<sup>[1]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>
<b>In Vivo</b>	<p>Rat retinas in model group and vehicle control group manifest an apparent up-regulation of BACE1 expression. Meanwhile, the level of malonaldehyde (MDA), Aβ1-40 and β-CTF are increased. However, when comparing with the vehicle control group, the retinas in Timosaponin-BII treated group showed significantly less BACE1 and accumulated less Aβ1-40 or β-CTF. It also showed significantly decreased level of MDA and prolonged partial thromboplastin time<sup>[2]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

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## REFERENCES

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- [1]. Guo J, et al. Cytotoxic activities of chemical constituents from rhizomes of Anemarrhena asphodeloides and their analogues. Arch Pharm Res. 2015;38(5):598-603.
- [2]. Huang JF, et al. Timosaponin-BII inhibits the up-regulation of BACE1 induced by ferric chloride in rat retina. BMC Complement Altern Med. 2012 Oct 22;12:189.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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