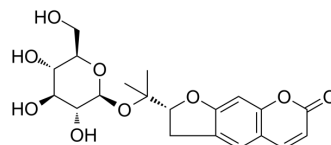


## Nodakenin

Cat. No.:	HY-N0825
CAS No.:	495-31-8
Molecular Formula:	C <sub>20</sub> H <sub>24</sub> O <sub>9</sub>
Molecular Weight:	408.4
Target:	Cholinesterase (ChE)
Pathway:	Neuronal Signaling
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



### SOLVENT & SOLUBILITY

In Vitro	DMSO : 100 mg/mL (244.86 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	2.4486 mL	12.2429 mL	24.4858 mL
		5 mM	0.4897 mL	2.4486 mL	4.8972 mL
		10 mM	0.2449 mL	1.2243 mL	2.4486 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 (6.12 mM); Clear solution  2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (6.12 mM); Clear solution				

### BIOLOGICAL ACTIVITY

Description	Nodakenin is a major coumarin glucoside in the root of <i>Angelica decusiva</i> . Nodakenin inhibits acetylcholinesterase (AChE) activity with an IC <sub>50</sub> of 84.7 μM <sup>[1][2]</sup> .
IC <sub>50</sub> & Target	AChE
In Vitro	Nodakenin inhibits AChE activity in a dosedependent manner with an IC <sub>50</sub> value of 84.7 μM <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Nodakenin (10 mg/kg, p.o.) reverses scopolamine-induced cognitive impairments in the passive avoidance test and the Y-maze test <sup>[1]</sup> . Nodakenin (10 mg/kg, p.o.) reduces escape latency during training in the Morris water maze test <sup>[1]</sup> .

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

Animal Model:	Male ICR mice
Dosage:	2.5, 5, 10 and 20 mg/kg
Administration:	p.o, single dose
Result:	Reversed in step-through latency induced by scopolamine.

## REFERENCES

- [1]. Kim DH, et al. Nodakenin, a coumarin compound, ameliorates scopolamine-induced memory disruption in mice. *Life Sci.* 2007 May 1;80(21):1944-50.
- [2]. Xiong Y, et al. The effects of nodakenin on airway inflammation, hyper-responsiveness and remodeling in a murine model of allergic asthma. *Immunopharmacol Immunotoxicol.* 2014 Oct;36(5):341-8.

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

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