

Nattokinase, Natto fermentation

Cat. No.:	HY-P2373		
CAS No.:	133876-92-3		
Target:	Others		
Pathway:	Others		Nattokinase, Natto fermentation
Storage:	Powder	-20°C 3 years 4°C 2 years	
	In solvent	-80°C 6 months -20°C 1 month	

SOLVENT & SOLUBILITY

In Vitro	H ₂ O : 100 mg/mL (Need ultrasonic)
In Vivo	1. Add each solvent one by one: PBS Solubility: 50 mg/mL (Infinity mM); Clear solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description	Nattokinase, Natto fermentation is a potent fibrinolytic enzyme. Nattokinase can break down blood clots by directly hydrolyzing fibrin and plasmin substrate. Nattokinase can be used for the research of cardiovascular diseases ^[1] .	
In Vitro	Nattokinase dissolves 94% blood clot at ten minutes and degrades the fibrin clot after two hours of incubation ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
In Vivo	Nattokinase (150-250 mg/kg; oral gavage twice daily for 2 days) exhibits fibrinolytic activity and dissolves blood clots in vivo ^[3] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
	Animal Model:	Sprague-Dawley (SD) rats (180-220 g) are injected κ-Carrageenan ^[3]
	Dosage:	150, 250 mg/kg
	Administration:	Oral gavage twice daily for 2 days
	Result:	Increased the plasma concentration of fibrin/fibrinogen degradation products (FDPs) and D-Dimer in a dose-dependent manner. Decreased the fraction of the vessel cross section occupied by thrombosis.

CUSTOMER VALIDATION

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- BMC Biol. 2023 Dec 10;21(1):290.

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REFERENCES

- [1]. Weng Y, et, al. Nattokinase: An Oral Antithrombotic Agent for the Prevention of Cardiovascular Disease. *Int J Mol Sci.* 2017 Feb 28; 18(3):523.
- [2]. Chandrasekaran SD, et, al. Exploring the In Vitro Thrombolytic Activity of Nattokinase From a New Strain *Pseudomonas aeruginosa* CMSS. *Jundishapur J Microbiol.* 2015 Oct 26; 8(10): e23567.
- [3]. Xu J, et, al. Thrombolytic effects in vivo of nattokinase in a carrageenan-induced rat model of thrombosis. *Acta Haematol.* 2014; 132(2): 247-53.
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Caution: Product has not been fully validated for medical applications. For research use only.

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