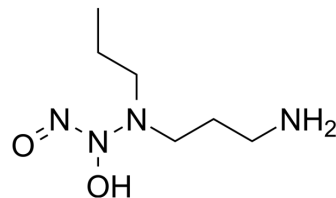


## PAPA NONOate

Cat. No.:	HY-134636
CAS No.:	146672-58-4
Molecular Formula:	C <sub>6</sub> H <sub>16</sub> N <sub>4</sub> O <sub>2</sub>
Molecular Weight:	176
Target:	Endogenous Metabolite
Pathway:	Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



### SOLVENT & SOLUBILITY

#### In Vitro

H<sub>2</sub>O : 50 mg/mL (284.09 mM; ultrasonic and warming and heat to 60°C)

Concentration	Mass			
	1 mg	5 mg	10 mg	
1 mM	5.6818 mL	28.4091 mL	56.8182 mL	
5 mM	1.1364 mL	5.6818 mL	11.3636 mL	
10 mM	0.5682 mL	2.8409 mL	5.6818 mL	

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

### BIOLOGICAL ACTIVITY

#### Description

PAPA NONOate is a NO donor with a NO release half-life of 77 min (22-25°C). PAPA NONOate may represent a potential research for impaired wound healing in diabetes by increasing the rate of collagen synthesis at the wound site<sup>[1][2][3]</sup>.

#### In Vitro

PAPA NONOate (50 μM; 12 h) significantly reduces 70% caspase-3-like activity in caspase-3-overexpressing HUVEC and abolishes the induction of cell death by caspase-3<sup>[1]</sup>.

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

#### In Vivo

PAPA NONOate (100 μM in phosphate buffer) increases the rate of wound healing in rats with diabetes and wound<sup>[2]</sup>.

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Animal Model:	Anesthetized male Sprague-Dawley rats with streptozotocin-induced diabetes and full thickness dermal wound <sup>[2]</sup>
Dosage:	100 μM
Administration:	Wounds received 100 μM PAPA NONOate in phosphate buffer

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Result:	Increased the wound healing rate in test group.
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## REFERENCES

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- [1]. Rössig L, et al. Nitric oxide inhibits caspase-3 by S-nitrosation in vivo. J Biol Chem. 1999 Mar 12;274(11):6823-6.
- [2]. N Dashti, et al. Study of the effect of PAPA NONOate on the rate of diabetic wound healing. African Journal of Biotechnology. 2014.
- [3]. Keefer LK, et al. "NONOates" (1-substituted diazen-1-ium-1,2-diolates) as nitric oxide donors: convenient nitric oxide dosage forms. Methods Enzymol. 1996;268:281-93.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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