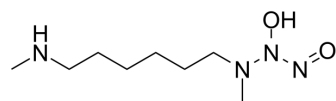


## MAHMA NONOate

|                    |  |
|--------------------|--|
| Cat. No.:          | HY-134216  |
| CAS No.:           | 146724-86-9  |
| Molecular Formula: | C <sub>8</sub> H <sub>20</sub> N <sub>4</sub> O <sub>2</sub> |
| Molecular Weight:  | 204.27   |
| Target:            | Endogenous Metabolite; NO Synthase                           |
| Pathway:           | Metabolic Enzyme/Protease; Immunology/Inflammation           |
| Storage:           | -80°C  |

\* The compound is unstable in solutions, freshly prepared is recommended.



### SOLVENT & SOLUBILITY

#### In Vitro

H<sub>2</sub>O : 62.5 mg/mL (305.97 mM; adjust pH to 10 with NaOH)

| Preparing Stock Solutions | Solvent Concentration | Mass      |            |            |
|---------------------------|-----------------------|-----------|------------|------------|
|                           |                       | 1 mg      | 5 mg       | 10 mg      |
|                           | 1 mM                  | 4.8955 mL | 24.4774 mL | 48.9548 mL |
|                           | 5 mM                  | 0.9791 mL | 4.8955 mL  | 9.7910 mL  |
|                           | 10 mM                 | 0.4895 mL | 2.4477 mL  | 4.8955 mL  |

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

### BIOLOGICAL ACTIVITY

#### Description

MAHMA NONOate is a NO donor. MAHMA NONOate effectively inhibits platelet aggregation induced by either collagen or ADP [1].

#### In Vitro

MAHMA NONOate (0.1 nM-100 μM) dose-dependently inhibits platelet aggregation induced by either collagen or ADP<sup>[1]</sup>. MAHMA NONOate shows inhibitory effects to pulmonary artery and platelet aggregation with log IC<sub>50</sub> values of 7.18 and 6.16, respectively<sup>[1]</sup>. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

#### In Vivo

MAHMA NONOate (0.3-10 nmol/kg/min; i.v. once) shows both platelet inhibitory and vasodepressor effects in vivo<sup>[2]</sup>. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

|                 |   |
|-----------------|---|
| Animal Model:   | Male Wistar rats anaesthetised with pentobarbitone <sup>[2]</sup> |
| Dosage:         | 0.3-10 nmol/kg/min  |
| Administration: | Intravenous injection; 0.3-10 nmol/kg/min once                    |

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Result:

Dose-dependently decreased in mean systemic artery pressure and showed a more potent effect than GSNO. Caused dose-dependent inhibition of the response to 0.3  $\mu$ M/kg ADP.

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## REFERENCES

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- [1]. Homer KL, Wanstall JC. Inhibition of rat platelet aggregation by the diazeniumdiolate nitric oxide donor MAHMA NONOate. *Br J Pharmacol*. 2002 Dec;137(7):1071-81.
- [2]. Homer KL, Wanstall JC. Platelet inhibitory effects of the nitric oxide donor drug MAHMA NONOate in vivo in rats. *Eur J Pharmacol*. 2003 Dec 15;482(1-3):265-70.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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