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Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



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Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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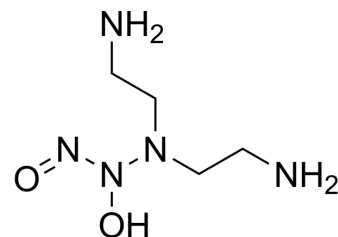
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DETA NONOate

Cat. No.:	HY-136278
CAS No.:	146724-94-9
Molecular Formula:	C ₄ H ₁₃ N ₃ O ₂
Molecular Weight:	163
Target:	NO Synthase
Pathway:	Immunology/Inflammation
Storage:	Powder -20°C 3 years In solvent -80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

H₂O : 50 mg/mL (306.75 mM; ultrasonic and adjust pH to 9 with H₂O)
DMSO : < 1 mg/mL (ultrasonic) (insoluble or slightly soluble)

	Solvent Concentration	Mass	1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM		6.1350 mL	30.6748 mL	61.3497 mL
	5 mM		1.2270 mL	6.1350 mL	12.2699 mL
	10 mM		0.6135 mL	3.0675 mL	6.1350 mL

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

BIOLOGICAL ACTIVITY

Description

DETA NONOate (NOC 18) is an exogenous nitric oxide (NO) donor. DETA NONOate shows a slow release normal amounts of NO and long-acting^{[1][2]}.

In Vitro

DETA NONOate (100 µM; 16 h) induces growth in an Mycobacterium abscessus complex (MABC) R morphotype by reduced glycopeptidolipid (GPL) expression of M. abscessus subspecies abscessus (Mab)^[3].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

DETA NONOate (15-150 µg/rat, i.c.v., once) exhibits a nociceptive effect in the rat formalin model^[2].
DETA NONOate (1 µM) reduces ischemia- or ischemia/reperfusion-induced injury to cardiac mitochondria and prevents apoptotic cell death^[4].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Sprague-Dawley rats (Sixty-two, male, 200-250 g) ^[2]
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Dosage:	15 or 150 µg per rat
Administration:	i.c.v., once
Result:	Accelerated the nociception in a dose-dependent manner, and this acceleration was completely abolished by Methylene Blue (HY-14536).

REFERENCES

- [1]. Nandanwar N, et al. Growth medium and nitric oxide alter Mycobacterium abscessus morphotype and virulence. Microbiol Res. 2021 Dec;253:126887.
- [2]. Umbrasas D, et al. Nitric Oxide Donor NOC-18-Induced Changes of Mitochondrial Phosphoproteome in Rat Cardiac Ischemia Model. Medicina (Kaunas). 2019 Sep 24;55(10):631.
- [3]. Soichiro Sonoda, et al. Exogenous nitric oxide stimulates the odontogenic differentiation of rat dental pulp stem cells. Sci Rep. 2018 Feb 21;8(1):3419.
- [4]. S Shibuta, et al. A new nitric oxide donor, NOC-18, exhibits a nociceptive effect in the rat formalin model. EJ Neurol Sci. 1996 Sep 15;141(1-2):1-5

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

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