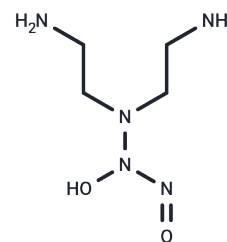


DETA NONOate

Chemical Properties

CAS No. :	146724-94-9
Formula:	C ₄ H ₁₃ N ₅ O ₂
Molecular Weight:	163.18
Storage:	Store at low temperature Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



Biological Description

Description	DETA NONOate (NOC 18) is an exogenous nitric oxide (NO) donor with vasodilatory and antidepressant activity. DETA NONOate can be used to activate inward currents in neurons, which may accelerate the healing of MRSA-infected wounds.
Targets(IC50)	NO Synthase
In vitro	By reducing the expression of glycopeptidolipids (GPL) in <i>M. abscessus</i> subspecies <i>abscessus</i> (Mab), DETA NONOate (100 μM; 16 h) induces the growth of nontuberculous mycobacteria (NTM) complex in the R morphotype[3].
In vivo	DETA NONOate (15-150 μg/rat, intracerebroventricular injection, once) activates nociceptors in the formalin model in rats[4] and, at 1 μM, reduces ischemia or ischemia/reperfusion-induced mitochondrial damage in the heart while preventing apoptotic cell death[2].

Solubility Information

Solubility	aqueous buffers: >100 mg/mL, Sonication is recommended. H ₂ O: 30 mg/mL (183.85 mM), when pH is adjusted to 9 with NaOH. Sonication is recommended. 1M NaOH: 120 mg/mL (735.38 mM) DMSO: <1 mg/mL (Insoluble) (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	6.1282 mL	30.641 mL	61.282 mL
5 mM	1.2256 mL	6.1282 mL	12.2564 mL
10 mM	0.6128 mL	3.0641 mL	6.1282 mL
50 mM	0.1226 mL	0.6128 mL	1.2256 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

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.

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Nandanwar N, et al. Growth medium and nitric oxide alter Mycobacterium abscessus morphotype and virulence. *Microbiol Res.* 2021 Dec;253:126887.

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

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