

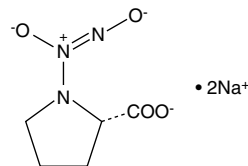
Product Information



PROLI NONOate

Item No. 82145

CAS Registry No.: 178948-42-0
Formal Name: 1-(hydroxy-NNO-azoxy)-L-proline, disodium salt
MF: $C_5H_7N_3O_4 \cdot 2Na$
FW: 219.1
Purity: $\geq 98\%$
Stability: ≥ 1 year at $-80^\circ C$
Supplied as: A crystalline solid
UV/Vis.: λ_{max} : 252 nm



Laboratory Procedures

For long term storage, keep PROLI NONOate sealed under nitrogen at $-80^\circ C$. It should be stable for at least one year. The crystals are sensitive to moisture and become discolored on exposure to air. Keep the vial sealed until use unless your laboratory is equipped with a glove box with an inert atmosphere for the handling of air sensitive compounds.

PROLI NONOate dissociates to L-Proline and nitric oxide in a pH-dependent manner following first order kinetics. Alkaline solutions of NONOates (in 0.01 M NaOH) are very stable and can be stored at $0^\circ C$ for 24 hours. PROLI NONOate is highly soluble in water and relatively concentrated solutions can be prepared for further dilution. To initiate the release of nitric oxide, add a portion of the stock alkaline solution of PROLI NONOate to excess buffer of pH 7.0-7.4. The half-life of PROLI NONOate is 1.8 seconds at $37^\circ C$ in 0.1 M phosphate buffer (pH 7.4).

The intact PROLI NONOate has a characteristic UV absorbance at 252 nm ($\epsilon = 8,400 \text{ M}^{-1} \text{ cm}^{-1}$), permitting quantitation in aqueous solutions.¹ The concentration of the basic stock solution of PROLI NONOate can be measured by UV if there is any uncertainty about the condition under which it was prepared or stored.

Intravenous infusion of an alkaline solution of PROLI NONOate at a rate of 24 nmol/kg/min relieves pulmonary hypertension in U-46619-treated sheep as effectively and specifically as inhalation of 40 ppm nitric oxide.²

References

1. Maragos, C.M., Morley, D., Wink, D.A., *et al.* Complexes of $\cdot NO$ with nucleophiles as agents for the controlled biological release of nitric oxide. Vasorelaxant effects. *J. Med. Chem.* **34**, 3242-3247 (1991).
2. Saavedra, J.E., Southan, G.J., Davies, K.M., *et al.* Localizing antithrombotic and vasodilatory activity with a novel, ultrafast nitric oxide donor. *J. Med. Chem.* **39**, 4361-4365 (1996).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/82145

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY; NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Cayman Chemical Company makes **no warranty or guarantee** of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman warrants only to the original customer that the material will meet our specifications at the time of delivery.

Cayman will carry out its delivery obligations with due care and skill. Thus, in no event will Cayman have any obligation or liability, whether in tort (including negligence) or in contract, for any direct, indirect, incidental or consequential damages, even if Cayman is informed about their possible existence.

This limitation of liability does not apply in the case of intentional acts or negligence of Cayman, its directors or its employees.

Buyer's exclusive remedy and Cayman's sole liability hereunder shall be limited to a refund of the purchase price, or at Cayman's option, the replacement, at no cost to Buyer, of all material that does not meet our specifications.

Said refund or replacement is conditioned on Buyer giving written notice to Cayman within thirty (30) days after arrival of the material at its destination. Failure of Buyer to give said notice within thirty (30) days shall constitute a waiver by Buyer of all claims hereunder with respect to said material.

For further details, please refer to our Warranty and Limitation of Remedy located on our website and in our catalog.

Copyright Cayman Chemical Company, 02/03/2014

Cayman Chemical

Mailing address

1180 E. Ellsworth Road
Ann Arbor, MI
48108 USA

Phone

(800) 364-9897
(734) 971-3335

Fax

(734) 971-3640

E-Mail

custserv@caymanchem.com

Web

www.caymanchem.com