

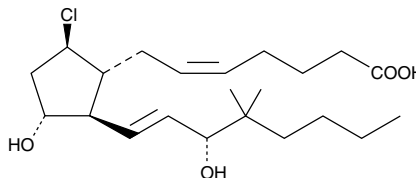
# Product Information



## Nocloprost

Item No. 10988

**CAS Registry No.:** 79360-43-3  
**Formal Name:** 9 $\beta$ -chloro-11 $\alpha$ ,15R-dihydroxy-16,16-dimethyl-prosta-5Z,13E-dien-1-oic acid  
**MF:** C<sub>22</sub>H<sub>37</sub>ClO<sub>4</sub>  
**FW:** 401.0  
**Purity:**  $\geq$ 98%  
**Stability:**  $\geq$ 1 year at -20°C  
**Supplied as:** A solution in methyl acetate



### Laboratory Procedures

For long term storage, we suggest that nocloprost be stored as supplied at -20°C. It should be stable for at least one year.

Nocloprost is supplied as a solution in methyl acetate. To change the solvent, simply evaporate the nocloprost under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol, DMSO, and dimethyl formamide purged with an inert gas can be used. The solubility of nocloprost in these solvents is approximately 16, 10, and 11 mg/ml, respectively.

Nocloprost is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the ethanolic solution of nocloprost should be diluted with the aqueous buffer of choice. Nocloprost has a solubility of approximately 0.3 mg/ml in a 1:2 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Nocloprost is a stable prostaglandin E<sub>2</sub> analog with gastroprotective and ulcer-healing properties. As a weak acid (pK<sub>a</sub> = 5), it accumulates in the gastric mucosa at low pH and can prevent the formation of gastric lesions in rats when administered intragastrically 30 minutes before 100% ethanol, acidified aspirin, acidified taurocholate, water immersion, or restraint stress (ID<sub>50</sub>s = 0.25, 0.58, 0.06 and 0.12  $\mu$ g/kg, respectively).<sup>1</sup> Additionally, nocloprost has been used to inhibit evoked acetylcholine release from isolated human bronchi (IC<sub>50</sub> = 4 nM) to study factors that regulate human airway smooth muscle tone and secretion.<sup>2</sup>

### References

1. Konturek, S.J., Brzozowski, T., Drozdowicz, D., *et al.* Nocloprost, a unique prostaglandin E<sub>2</sub> analog with local gastroprotective and ulcer-healing activity. *Eur. J. Pharmacol.* **195(3)**, 347-357 (1991).
2. Reinheimer, T., Harnack, E., Racke, K., *et al.* Prostanoid receptors of the EP<sub>3</sub> subtype mediate inhibition of evoked [<sup>3</sup>H]acetylcholine release from isolated human bronchi. *Br. J. Pharmacol.* **125(2)**, 271-276 (1998).

### Related Products

For a list of related products please visit: [www.caymanchem.com/catalog/10988](http://www.caymanchem.com/catalog/10988)

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

#### SAFETY DATA

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### 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](mailto:custserv@caymanchem.com)

#### Web

[www.caymanchem.com](http://www.caymanchem.com)