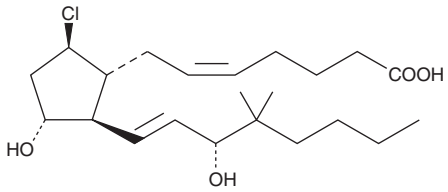
PRODUCT INFORMATION

Noclopost

Item No. 10988

CAS Registry No.:	79360-43-3
Formal Name:	9β-chloro-11α,15R-dihydroxy-16,16-dimethyl-prosta-5Z,13E-dien-1-oic acid
MF:	$C_{22}H_{37}ClO_4$
FW:	401.0
Purity:	≥98%
Supplied as:	A solution in methyl acetate
Storage:	-20°C
Stability:	≥1 year



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Nocloprost is supplied as a solution in methyl acetate. To change the solvent, simply evaporate the methyl acetate 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 methyl acetate solution of nocloprost should be diluted with the aqueous buffer of choice. Nocloprost has a solubility of 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.

Description

Nocloprost is a stable prostaglandin E_2 analog with gastroprotective and ulcer-healing properties. As a weak acid (pK_a = 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_{50}s = 0.25, 0.58, 0.06 and 0.12 µg/kg, respectively).[1] Additionally, nocloprost has been used to inhibit evoked acetylcholine release from isolated human bronchi (IC_{50} = 4 nM) to study factors that regulate human airway smooth muscle tone and secretion.[2]

References

1. Konturek, S.J., Brzozowski, T., Drozdowicz, D., *et al.* Nocloprost, a unique prostaglandin E_2 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_3 subtype mediate inhibition of evoked [^{3}H]acetylcholine release from isolated human bronchi. *Br. J. Pharmacol.* **125(2)**, 271-276 (1998).

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