Nocloprost

Cat. No.: HY-106054

CAS No.: 79360-43-3

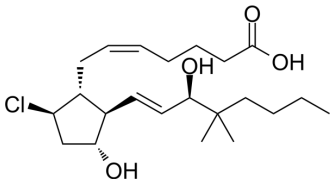
Molecular Formula: $C_{22}H_{37}ClO_4$

Molecular Weight: 400.98

Target: Prostaglandin Receptor

Pathway: GPCR/G Protein

Storage: Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Nocloprost, a prostaglandin E2 (PGE2) analog, is an orally active EP1- and EP3-receptor agonist. Nocloprost inhibits evoked [^{3}H]ACh release. Nocloprost has gastroprotective and ulcer-healing properties. Nocloprost accelerates the healing of chronic gastric ulcerations and enhances mucosal growth in rats[1][2].	
IC_{50} & Target	EP1	EP3

In Vivo

Nocloprost (intragastrically; 0.01-10 μg/kg) 30 min before 100% ethanol, acidified Aspirin (HY-14654), acidified Taurocholate (HY-N0545), water immersion, or restraint stress dose dependently prevents the formation of gastric lesions in rats[1].
Nocloprost (i.g.; 0.01-100 μg/kg) failes to affect gastric acid secretion or intestinal secretion (enteropooling) but preventes the increased gastroduodenal alkaline secretion[1].
Nocloprost (s.c.) shows protective activity against ethanol damage but is ineffective when applied intraduodenally[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	220-250 g rats[1]
Dosage:	0.01-10 μg/kg
Administration:	Intragastrically; single dose
Result:	30 min before 100% ethanol, acidified Aspirin (ASA), acidified Taurocholate, water immersion, or restraint stress dose dependently prevented the formation of gastric lesions, the ID_{50} values being 0.25, 0.58, 0.06 and 0.12 μg/kg in rats, respectively.

REFERENCES

[1]. S J Konturek, et al. Nocloprost, a unique prostaglandin E2 analog with local gastroprotective and ulcer-healing activity. Eur J Pharmacol. 1991 Apr 3;195(3):347-57.

[2]. T Reinheimer, et al. Prostanoid receptors of the EP3 subtype mediate inhibition of evoked [3H]acetylcholine release from isolated human bronchi. Br J Pharmacol. 1998 Sep;125(2):271-6.

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

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