

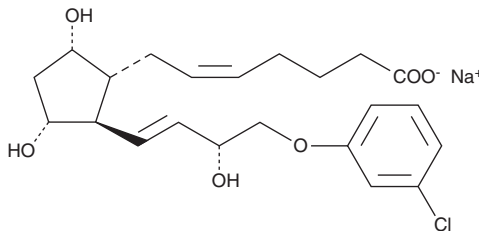
Product Information



(+)-Cloprostenol (sodium salt)

Item No. 16766

CAS Registry No.: 62561-03-9
Formal Name: (+)-9 α ,11 α ,15R-trihydroxy-16-(3-chlorophenoxy)-17,18,19,20-tetranorprosta-5Z,13E-dien-1-oic acid, sodium salt
Synonyms: D-Cloprostenol, (+)-16-*m*-chlorophenoxy tetranor Prostaglandin F_{2 α} (sodium salt)
MF: C₂₂H₂₈ClO₆ • Na
FW: 446.9
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis.: 220, 275, 282 nm



Laboratory Procedures

For long term storage, we suggest that (+)-cloprostenol (sodium salt) be stored as supplied at -20°C. It should be stable for at least two years.

(+)-Cloprostenol (sodium salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the (+)-cloprostenol (sodium salt) in an organic solvent. (+)-Cloprostenol (sodium salt) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of (+)-cloprostenol (sodium salt) in these solvents is approximately 50, 60, and 130 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of (+)-cloprostenol (sodium salt) can be prepared by directly dissolving the crystalline compound in aqueous buffers. The solubility of (+)-cloprostenol (sodium salt) in PBS (pH 7.2) is approximately 35 mg/ml. We do not recommend storing the aqueous solution for more than one day.

(+)-Cloprostenol (sodium salt) is a more water soluble, crystalline form of cloprostenol. (+)-Cloprostenol is a synthetic analog of prostaglandin F_{2 α} (PGF_{2 α}). It is an FP receptor agonist and a potent luteolytic agent in rats and hamsters. (+)-Cloprostenol is the optically active, 15(R) enantiomer of cloprostenol responsible for the majority of its biological activity. It is 200 times more potent than PGF_{2 α} in terminating pregnancy when given subcutaneously at a daily dose of 0.125 μ g/kg in rats and hamsters, without the side effects associated with PGF_{2 α} .¹ (+)-Cloprostenol has also been shown to be a potent inhibitor of rat adipose precursor differentiation in primary cultures with an IC₅₀ value of 3 x 10⁻¹² M.²

References

1. Dukes, M., Russell, W., and Walpole, A.L. Potent luteolytic agents related to prostaglandin F_{2 α} . *Nature* **250**, 330-331 (1974).
2. Serrero, G. and Lepak, N.M. Prostaglandin F_{2 α} receptor (FP receptor) agonists are potent adipose differentiation inhibitors for primary culture of adipocyte precursors in defined medium. *Biochem. Biophys. Res. Commun.* **233**, 200-202 (1997).

Related Products

Prostaglandin F_{2 α} - Item No. 16010 • Cloprostenol (sodium salt) - Item No. 16764 • (+)-Cloprostenol - Item No. 16765 • Fluprostenol - Item No. 16768 • (+)-Cloprostenol isopropyl ester - Item No. 10010016 • (+)-Cloprostenol methyl ester - Item No. 10010115 • (+)-Cloprostenol methyl amide - Item No. 10010495

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

MATERIAL 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 Material Safety Data Sheet, which has been sent via email to your institution.

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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.

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