

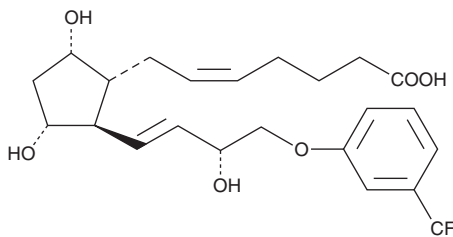
PRODUCT INFORMATION



Fluprostenol

Item No. 16768

CAS Registry No.: 54276-17-4
Formal Name: (+)-9 α ,11 α ,15R-trihydroxy-16-(3-(trifluoromethyl)phenoxy)-17,18,19,20-tetranor-prosta-5Z,13E-dien-1-oic acid
Synonym: 16-m-trifluoromethylphenoxy tetranor Prostaglandin F_{2 α}
MF: C₂₃H₂₉F₃O₆
FW: 458.5
Purity: \geq 95%
UV/Vis.: λ_{max} : 222, 280 nm
Supplied as: A solution in ethanol
Storage: -20°C
Stability: \geq 1 year



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

Laboratory Procedures

Fluprostenol is supplied as a solution in ethanol. To change the solvent, simply evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as DMSO or dimethyl formamide purged with an inert gas can be used. The solubility of fluprostenol in these solvents is approximately 100 mg/ml. Fluprostenol is stable for at least six months in these solvents if stored at -20°C. 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 solutions of fluprostenol can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of fluprostenol in PBS (pH 7.2) is approximately 16 mg/ml. Store aqueous solutions of fluprostenol on ice and use within 12 hours of preparation. Although the aqueous solutions of fluprostenol may be stable for more than 12 hours, we strongly recommend using a fresh preparation each day.

Description

Fluprostenol is a metabolically stable analog of PGF_{2 α} with potent FP receptor agonist activity.^{1,2} Fluprostenol is the optically active enantiomer of (\pm)-fluprostenol, and would be expected to have twice the potency. Fluprostenol inhibits PGF_{2 α} binding to human and rat FP receptors with IC₅₀ values of 3.5 and 7.5 nM, respectively.^{1,2} It is a much more potent luteolytic agent than PGF_{2 α} in rats with a minimum fully effective dose of 270 μ g/kg to terminate pregnancy.³ It is also an effective inhibitor of rat adipose precursor differentiation in primary cultures with an IC₅₀ of 3-10 x 10⁻¹¹ M.⁴

References

1. Abramovitz, M., Boie, Y., Nguyen, T., *et al.* *J. Biol. Chem.* **269**, 2632-2636 (1994).
2. Lake, S., Gullberg, H., Wahlqvist, J., *et al.* *FEBS Lett.* **355**, 317-325 (1994).
3. Dukes, M., Russell, W., and Walpole, A.L. *Nature* **250**, 330-331 (1974).
4. Serrero, G. and Lepak, N.M. *Biochem. Biophys. Res. Commun.* **233**, 200-202 (1997).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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