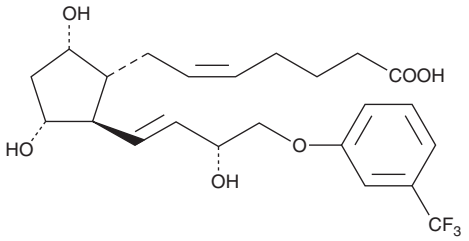
PRODUCT INFORMATION

Fluprostenol

Item No. 16768

CAS Registry No.:	54276-17-4
Formal Name:	(+)-9α,11α,15R-trihydroxy-16-(3-(trifluoromethyl)phenoxy)-17,18,19,20-tetranor-prosta-5Z,13E-dien-1-oic acid
Synonym:	16-m-trifluoromethylphenoxy tetranor Prostaglandin $F_{2\alpha}$
MF:	$C_{23}H_{29}F_3O_6$
FW:	458.5
Purity:	≥95%
UV/Vis.:	λ_{max}: 222, 280 nm
Supplied as:	A solution in ethanol
Storage:	-20°C
Stability:	≥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 $PGF_{2\alpha}$ with potent FP receptor agonist activity.[1,2] Fluprostenol is the optically active enantiomer of (±)-fluprostenol, and would be expected to have twice the potency. Fluprostenol inhibits $PGF_{2\alpha}$ binding to human and rat FP receptors with IC_{50} values of 3.5 and 7.5 nM, respectively.[1,2] It is a much more potent luteolytic agent than $PGF_{2\alpha}$ in rats with a minimum fully effective dose of 270 µg/kg to terminate pregnancy.[3] It is also an effective inhibitor of rat adipose precursor differentiation in primary cultures with an IC_{50} 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).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM