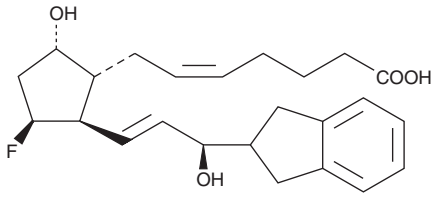
PRODUCT INFORMATION

AL 8810

Item No. 16735

CAS Registry No.: 246246-19-5
Formal Name: 9α,15R-dihydroxy-11β-fluoro-15-(2,3-dihydro-1H-inden-2-yl)-16,17,18,19,20-pentanor-prosta-5Z,13E-dien-1-oic acid
MF: $C_{24}H_{31}O_4F$
FW: 402.5
Purity: ≥98%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

AL 8810 is supplied as a crystalline solid. A stock solution may be made by dissolving the AL 8810 in the solvent of choice. AL 8810 is miscible in the organic solvent ethanol, which should be purged with an inert gas. AL 8810 is soluble in DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of AL 8810 in these solvents is approximately 25 and 30 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 AL 8810 can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of AL 8810 in PBS, pH 7.2, is approximately 0.05 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

AL 8810 is an 11β-fluoro analog of $PGF_{2\alpha}$ which acts as a potent and selective antagonist at the FP receptor.[1] AL 8810 has weak intrinsic agonist activity on FP receptor preparations in the 200-300 nM range. Yet it fully antagonized the activity of the potent FP receptor agonist fluprostenol at this concentration, with EC_{50} values of approximately 430 nM. AL 8810 fully antagonized the bimatoprost-induced calcium mobilization in Swiss 3T3 fibroblasts at 100 µM, indicating that bimatoprost acts as an FP agonist in this preparation.[2] The K_i for the inhibition of several potent agonists at the cloned human ciliary body FP receptor is in the range of 1-2 µM.[3]

References

1. Griffen, B.W., Klimko, P., Crider, J.Y., *et al.* AL-8810: A novel prostaglandin $F_{2\alpha}$ analog with selective antagonist effects at the prostaglandin $F_{2\alpha}$ (FP) receptor. *J. Pharm. Exp. Ther.* **290**, 1278-1284 (1999).
2. Sharif, N.A., Williams, G.W., and Kelly, C.R. Bimatoprost and its free acid are prostaglandin FP receptor agonists. *Eur. J. Pharmacol.* **432**, 211-213 (2001).
3. Sharif, N.A., Kelly, C.R., and Crider, J.Y. Agonist activity of Bimatoprost, Travoprost, Latanoprost, Unoprostone isopropyl ester and other prostaglandin analogs at the cloned human ciliary body FP prostaglandin receptor. *J. Ocul. Pharmacol.* **18**, 313-324 (2002).

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