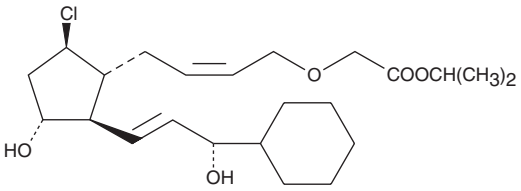
# PRODUCT INFORMATION

## ZK 118182 isopropyl ester

*Item No. 13673*

**CAS Registry No.:** 154927-31-8
**Formal Name:** [[(2Z)-4-[(1R,2R,3R,5R)-5-chloro-2-[(1E,3S)-3-cyclohexyl-3-hydroxy-1-propenyl]-3-hydroxycyclopentyl]-2-butenyl]oxy]-acetic acid, 1-methylethyl ester
**MF:** $C_{23}H_{37}ClO_5$
**FW:** 429.0
**Purity:** ≥98%
**Supplied as:** A solution in methyl acetate
**Storage:** -20°C
**Stability:** ≥1 year




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

### Laboratory Procedures

ZK 118182 isopropyl ester is supplied as a solution in methyl acetate. To change the solvent, simply evaporate the methyl acetate under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol, DMSO, and dimethyl formamide purged with an inert gas can be used. The solubility of ZK 118182 isopropyl ester in these solvents is approximately 12.5, 2, and 3 mg/ml, respectively.

ZK 118182 isopropyl ester is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the methyl acetate solution of ZK 118182 isopropyl ester should be diluted with the aqueous buffer of choice. ZK 118182 isopropyl ester has a solubility of 0.1 mg/ml in a 1:10 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Elevated intraocular pressure (IOP) is an important risk factor in developing glaucoma. Certain prostaglandins (PGs) such as $PGF_{2\alpha}$ and $PGD_2$, have been shown to reduce IOP. ZK 118182 is a PG analog that has potent DP-agonist activity ($EC_{50}$ = 16.5 nM) and a high nanomolar affinity for the DP receptor ($K_i$ = 74 nM).[1] ZK 118182 isopropyl ester is a prodrug formulation of ZK 118182 designed to enhance corneal absorption. At 0.03 µg, ZK 118182 isopropyl ester has been shown to lower monkey and rabbit IOP 46% and 20%, respectively, two hours after dosing, demonstrating a much more potent effect compared to the free acid.[2]

### References


1. Sharif, N.A., Williams, G.W., Crider, J.Y., *et al.* Molecular pharmacology of the DP/EP2 class prostaglandin AL-6598 and quantitative autoradiographic visualization of DP and EP2 receptor sites in human eyes. *J. Ocul. Pharmacol. Ther.* **20(6)**, 489-508 (2004).
2. Hellberg, M.R., Conrow, R.E., Sharif, N.A., *et al.* 3-Oxa-15-cyclohexyl prostaglandin DP receptor agonists as topical antiglaucoma agents. *Bioorg. Med. Chem.* **10(6)**, 2031-2049 (2002).





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