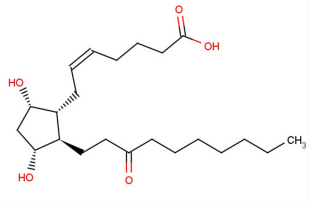
Data Sheet (Cat.No.T13955)

TargetMol
A DRUG SCREENING EXPERT

Unoprostone

Chemical Properties



CAS No.:	120373-36-6
Formula:	C22H38O5
Molecular Weight:	382.53
Appearance:	N/A
Storage:	0-4℃ for short term (days to weeks), or -20℃ for long term (months).

Biological Description

Description	Unoprostone is a prostaglandin F2α analogs (PGAs), and reduces intraocular pressure and is used topically for glaucoma or ocular hypertension.
Targets(IC_{50})	Others: None
In vitro	Pretreatment with Unoprostone (0.01, 0.1, 1 μM; 1 hour before H2O2 treatment) prevents H2O2-induced cell death in a concentration-dependent manner, and the effect is significant at 0.1 μM and 1 μM concentrations. Pretreatment with Unoprostone at a concentration of 0.1 to 3 μM can prevent light-induced cell death in a concentration-dependent manner; the effect is significant at 1 and 3 μM. Unoprostone reduces the morphological change, and it significantly inhibits the low mitochondrial membrane potential and cell death induced by light irradiation [1]. Unoprostone has prostaglandin F2α receptors (FP) binding affinity (Ki: 3.86 μM) [2].

Solubility Information

Solubility	< 1 mg/ml refers to the product slightly soluble or insoluble

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.614 mL	13.071 mL	26.142 mL
5 mM	0.523 mL	2.614 mL	5.228 mL
10 mM	0.261 mL	1.307 mL	2.614 mL
50 mM	0.052 mL	0.261 mL	0.523 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 ℃ for 6 months; - 20 ℃ for 1 month. Please use it as soon as possible.

Reference

1. Tsuruma K, et al. Unoprostone reduces oxidative stress- and light-induced retinal cell death, and phagocytoticdysfunction, by activating BK channels. Mol Vis. 2011;17:3556-65. Epub 2011 Dec 30.

2. Kelly CR, et al. Real-time intracellular Ca2+ mobilization by travoprost acid, bimatoprost, unoprostone, and otheranalogs via endogenous mouse, rat, and cloned human FP prostaglandin receptors. J Pharmacol Exp Ther. 2003 Jan;304(1):238-45.

3. Ota T, et al. The effects of prostaglandin analogues on IOP in prostanoid FP-receptor-deficient mice. Invest Ophthalmol Vis Sci. 2005 Nov;46(11):4159-63.

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