Web: www.taiclone.com
Tel: +886-2-2735-9682
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# Latanoprost

## Catalog No: tcsc2758

### Available Sizes

**Size:** 5mg

**Size:** 10mg

**Size:** 25mg

**Size:** 50mg

### Specifications

**CAS No:**
130209-82-4

**Formula:**
$C_{26}H_{40}O_5$

**Pathway:**
GPCR/G Protein

**Target:**
Prostaglandin Receptor

**Purity / Grade:**
>98%

**Solubility:**
10 mM in DMSO

**Alternative Names:**
PHXA41

**Observed Molecular Weight:**
432.59

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## Product Description

Latanoprost is an agonist for the **FP prostanoid receptor**, and lowers intraocular-pressure (IOP).

IC50 & Target: FP prostanoid receptor[5]

***In Vitro:*** Benzalkonium chloride latanoprost (BAK-latanoprost) and 0.02% BAK induce significant apoptosis in the apical layers that correlated with the significant decrease of cell viability. Preservative-free latanoprost (PF-latanoprost) slightly decreases cell viability and few apoptotic cells are found in the superficial layers, without reaching statistical significance compared with PBS[1]. Latanoprost (0.1 μM) significantly increases cell viability as compared with control. Meanwhile, 0.1 μM latanoprost results in the obvious promotion of neurite outgrowth similar to ciliary neurotrophic factor (CNTF) and simultaneously increases the levels of p-Akt and p-mTOR expression. Latanoprost can promote neurite outgrowth through an FP receptor-mediated modulation of the PI3K-Akt-mTOR signaling pathway[3]. Latanoprost (0.03 or 0.3 μg/mL) and bimatoprost increase MMP-9 activity by 75% ± 27% and 75% ± 24%, respectively, in human CBSM cells[4].

***In Vivo:*** A single drop of latanoprost results in marked miosis, anterior bowing of the peripheral iris, narrowing of the iridocorneal angle, and shallowing of the anterior chamber of the beagle dog. Following latanoprost, the pupil diameter, ACA, and AOD (means) decreases 84%, 14%, and 16%, respectively[2].