Taiclone®
Quality Guarantee

Web: www.taiclone.com
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Losartan (potassium)

Catalog No: tcsc2117

Available Sizes

Size: 1g

Size: 5g

Specifications

CAS No:
124750-99-8

Formula:
$C_{22}H_{22}ClKN_6O$

Pathway:
GPCR/G Protein

Target:
Angiotensin Receptor

Purity / Grade:
>98%

Solubility:
DMSO : ≥ 110 mg/mL (238.61 mM); H2O : 33.33 mg/mL (72.30 mM; Need ultrasonic)

Alternative Names:
DuP-753 potassium

Observed Molecular Weight:
461

Product Description

Losartan (potassium) is an **angiotensin II receptor** antagonist, competing with the binding of angiotensin II to AT1 receptors with **IC_{50}** of 20 nM.

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IC50 & Target: IC50: 20 nM (angiotensin II)

In Vitro: Losartan competes with the binding of angiotensin II to AT1 receptors. The concentration that inhibits 50% of the binding of angiotensin II (IC_{50}) is 20 nM[1]. Losartan (40 μM) affects I_{SC} but prevents the effect of ANGII on I_{SC}[2]. Losartan significantly reduces Ang II-mediated cell proliferation in endometrial cancer cells. The combination of losartan and anti-miR-155 has a significantly greater antiproliferative effect compared to each drug alone[3].

In Vivo: Losartan (0.6 g/L, p.o.) -treated *Fbn1*$^{C1039G/+}$ mice show a reduction in distal airspace caliber relative to placebo-treated *Fbn1*$^{C1039G/+}$ animals. The doses of losartan and propranolol are titrated to achieve comparable hemodynamic effects. Analysis of pSmad2 nuclear staining reveals that losartan antagonizes TGF-β signaling in the aortic wall of *Fbn1*$^{C1039G/+}$ mice. Losartan can improve disease manifestations in the lungs, an event that cannot plausibly relate to improved hemodynamics[4]. Losartan (10 mg/kg, intraarterial injection) increases blood angiotensin levels four- to sixfold. Losartan (10 mg/kg, i.p.) increases plasma renin levels 100-fold; plasma angiotensinogen levels decreases to 24% of control; and plasma aldosterone levels are unchanged[5].