

PRODUCT INFORMATION



Losartan (potassium salt)

Item No. 10006594

CAS Registry No.: 124750-99-8
Formal Name: 2-butyl-4-chloro-1-[[2'-(1H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]-1H-imidazole-5-methanol, monopotassium salt

Synonyms: DuP-753, MK 954

MF: C₂₂H₂₂ClN₆O • K

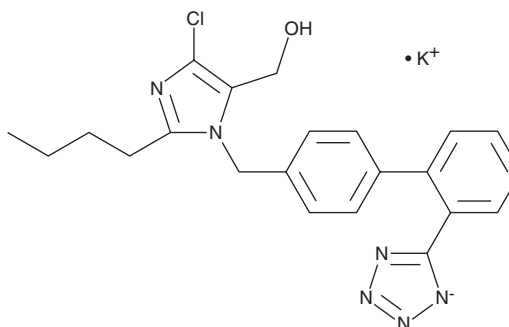
FW: 461.0

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

Losartan (potassium salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the losartan (potassium salt) in the solvent of choice, which should be purged with an inert gas. Losartan (potassium salt) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of losartan (potassium salt) in these solvents is approximately 20 mg/ml.

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 losartan (potassium salt) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of losartan (potassium salt) in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Losartan is an antagonist of angiotensin II type 1b (AT_{1b}) receptor (IC₅₀ = 2.2 nM in COS-7 cells expressing the rat receptor).¹ It reduces U-46619-induced aggregation of platelets in isolated human platelet-rich plasma when used at a concentration of 5 μM.² It decreases 1-lipoxygenase (1-LO) levels in the endothelial layer of autologous vein grafts in rabbits fed a high-cholesterol diet when administered at a dose of 10 mg/kg per day.³ Losartan (15 mg/kg per day) decreases systolic blood pressure in a ouabain-induced mouse model of hypertension.⁴ It also increases the mechanical pain threshold in the von Frey test in a paclitaxel-induced rat model of neuropathic pain when administered at a dose of 50 mg/kg twice per day.⁵ Formulations containing losartan have been used in the treatment of hypertension and diabetic nephropathy.

References

1. Ji, H., Leung, M., Zhang, Y., *et al. J. Biol. Chem.* **269**(24), 16533-16536 (1994).
2. Núñez, A., Gómez, J., Zalba, L.R., *et al. Losartan inhibits in vitro platelet activation: Comparison with candesartan and valsartan. J. Renin Angiotensin Aldosterone Syst.* **1**(2), 175-179 (2000).
3. Ge, J., Huang, D., Liang, C., *et al. Atherosclerosis* **177**(2), 263-268 (2004).
4. Xavier, F.E., Rossoni, L.V., Alonso, M.J., *et al. Br. J. Pharmacol.* **143**(1), 215-225 (2004).
5. Kim, E., Hwang, S.-H., Kim, H.-K., *et al. Mol. Neurobiol.* **56**(11), 7408-7419 (2019).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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