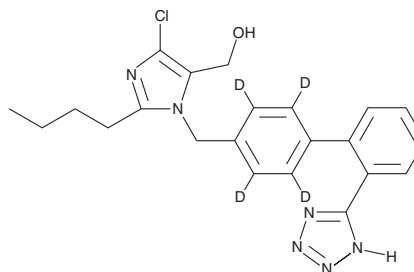


PRODUCT INFORMATION



Losartan-d₄ Item No. 22567

CAS Registry No.: 1030937-27-9
Formal Name: 2-butyl-4-chloro-1-[[2'-(2H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl-2,3,5,6-d₄]methyl]-1H-imidazole-5-methanol
MF: C₂₂H₁₉ClD₄N₆O
FW: 426.9
Chemical Purity: ≥98% (Losartan (potassium salt))
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₄); ≤1% d₀
Supplied as: A solid
Storage: 2-8°C
Stability: ≥4 years



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

Laboratory Procedures

Losartan-d₄ is intended for use as an internal standard for the quantification of losartan (potassium salt) (Item No. 10006594) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

Losartan-d₄ is supplied as a solid. A stock solution may be made by dissolving the losartan-d₄ in the solvent of choice, which should be purged with an inert gas. Losartan-d₄ is soluble in organic solvents such as ethanol and DMSO. The solubility of losartan-d₄ in these solvents is approximately 100 mM.

Description

Losartan is an antagonist of the angiotensin (AT) II receptor subtype AT₁ with a K_i value of 5-20 nM.¹ It has an attenuating effect on vein graft atherosclerosis in rabbits and effectively reduces arterial blood pressure in rats.^{2,3} Formulations containing losartan have been used to control hypertension while protecting renal function.⁴

References

1. Ji, H., Leung, M., Zhang, Y., *et al.* Differential structural requirements for specific binding of nonpeptide and peptide antagonists to the AT₁ angiotensin receptor. Identification of amino acid residues that determine binding of the antihypertensive drug losartan. *J. Biol. Chem.* **269**(24), 16533-16536 (1994).
2. Ge, J., Huang, D., Liang, C., *et al.* Upregulation of lectinlike oxidized low-density lipoprotein receptor-1 expression contributes to the vein graft atherosclerosis: Modulation by losartan. *Atherosclerosis* **177**(2), 263-268 (2004).
3. Xavier, F. E., Rossoni, L.V., Alonso, M.J., *et al.* Ouabain-induced hypertension alters the participation of endothelial factors in α -adrenergic responses differently in rat resistance and conductance mesenteric arteries. *Br. J. Pharmacol.* **143**(1), 215-225 (2004).
4. Caruso, D., D'Avino, M., Acampora, C., *et al.* Effects of losartan and chlorthalidone on blood pressure and renal vascular resistance index in non-diabetic patients with essential hypertension and normal renal function. *J. Cardiovasc. Pharmacol.* **44**(5), 520-524 (2004).

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.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 10/17/2022

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD

ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM