

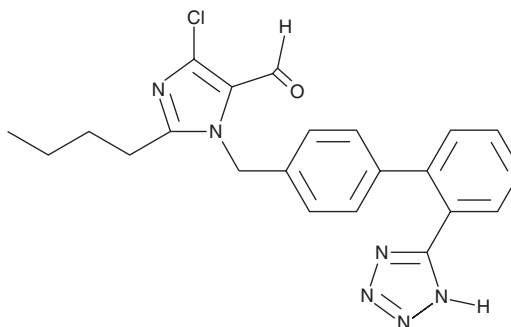
# PRODUCT INFORMATION



## Losartan Carboxaldehyde

Item No. 18855

**CAS Registry No.:** 114798-36-6  
**Formal Name:** 2-butyl-4-chloro-1-[[2'-(2H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]-1H-imidazole-5-carboxaldehyde  
**Synonyms:** DuP-167, E3179, EXP3179  
**MF:** C<sub>22</sub>H<sub>21</sub>ClN<sub>6</sub>O  
**FW:** 420.9  
**Purity:** ≥95%  
**UV/Vis.:** λ<sub>max</sub>: 249, 273 nm  
**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 carboxaldehyde is supplied as a crystalline solid. A stock solution may be made by dissolving the losartan carboxaldehyde in the solvent of choice, which should be purged with an inert gas. Losartan carboxaldehyde is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of losartan carboxaldehyde in these solvents is approximately 30 mg/ml.

Losartan carboxaldehyde is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, losartan carboxaldehyde should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Losartan carboxaldehyde has a solubility of approximately 0.5 mg/ml in a 1:1 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Losartan carboxaldehyde is an active metabolite of the angiotensin II type 1b (AT<sub>1b</sub>) receptor antagonist losartan (Item No. 10006594).<sup>1</sup> It is formed from losartan by the cytochrome P450 (CYP) isoforms CYP2C9 and CYP3A4. Losartan carboxaldehyde (10 pM) inhibits platelet aggregation induced by arachidonic acid (Item Nos. 90010 | 90010.1 | 10006607) in isolated human platelet-rich plasma.<sup>2</sup> It is an agonist of peroxisome proliferator-activated receptor γ (PPARγ; EC<sub>50</sub> = 17.1 μM in COS-7 cells expressing human PPARγ using a reporter assay).<sup>3</sup> Losartan carboxaldehyde (10 μM) increases lipid accumulation, a marker of differentiation, in 3T3-L1 adipocytes.<sup>3</sup> It decreases superoxide production by NADPH oxidase (NOX) in isolated human peripheral blood mononuclear cells (PBMCs) in a concentration-dependent manner.<sup>4</sup> Losartan carboxaldehyde (10 μM) inhibits LPS-induced increases in COX2 mRNA expression and LPS- or angiotensin II-induced increases in supernatant prostaglandin F<sub>2α</sub> (PGF<sub>2α</sub>; Item Nos. 16010 | 16020) levels in human umbilical vein endothelial cells (HUVECs).<sup>2</sup>

### References

1. R.A., S., Chakravarty, P.K., Chen, R., et al. *Drug Metab. Dispos.* **23**(2), 207-215 (1995).
2. Krämer, C., Sunkomat, J., Witte, J., et al. *Circ. Res.* **90**(7), 770-776 (2002).
3. Schupp, M., Lee, L.D., Frost, N., et al. *Hypertension* **47**(3), 586-589 (2006).
4. Fortuño, A., Bidegain, J., Robador, P.A., et al. *Hypertension* **54**(4), 744-750 (2009).

#### 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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