Losartan Carboxylic Acid

CAS Registry No.: 124750-92-1

Formal Name: 2-butyl-4-chloro-1-[[2’-(2H-tetrazol-5-yl)[1,1’-biphenyl]-4-yl]methyl]-1H-imidazole-5-carboxylic acid

Synonyms: E-3174, EXP-3174

MF: C22H21ClN6O2

FW: 436.9

Purity: ≥98%

Stability: ≥2 years at -20°C

Supplied as: A crystalline solid

UV/Vis: λ_max² 247 nm

Laboratory Procedures

For long term storage, we suggest that losartan carboxylic acid be stored as supplied at -20°C. It should be stable for at least two years.

Losartan carboxylic acid is supplied as a crystalline solid. A stock solution may be made by dissolving the losartan carboxylic acid in the solvent of choice. Losartan carboxylic acid is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of losartan carboxylic acid in these solvents is approximately 30 mg/ml.

Losartan carboxylic acid is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, losartan carboxylic acid should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Losartan carboxylic acid 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.

Losartan (Item No. 10006594) is an antagonist of the angiotensin II receptor, type 1 (AT_1) (Kᵢ = 5-20 nM). It has an attenuating effect on vein graft atherosclerosis in rabbits and effectively reduces arterial blood pressure in rats. In humans, losartan controls hypertension while protecting renal function. Losartan carboxylic acid is a physiologically active metabolite of losartan, produced by cytochrome P450 isoforms in the liver. Like the parent compound, losartan carboxylic acid is a potent AT_1 antagonist (Kᵢ = 0.57 and 0.67 nM for rat and human forms, respectively), producing a depressor response and vasodilatation. When administered intravenously, losartan carboxylic acid is more potent and has a longer duration of action than losartan. However, the metabolite has very low oral bioavailability.

Related Products

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WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

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