1H-1-ethyl Candesartan Cilexetil

CAS Registry No.: 914613-35-7

Formal Name: 2-ethoxy-1-[2'-(1-ethyl-1H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]-1H-benzimidazole-7-carboxylic acid, 1-[[cyclohexyloxy]carbonyl]oxy]ethyl ester

MF: C_{38}H_{38}N_{2}O_{6}

FW: 638.7

Purity: ≥98%

Stability: ≥2 years at -20°C

Supplied as: A crystalline solid

UV/Vis: λ_{max} 254 nm

Laboratory Procedures

For long term storage, we suggest that 1H-1-ethyl candesartan cilexetil be stored as supplied at -20°C. It should be stable for at least two years.

1H-1-ethyl Candesartan cilexetil is supplied as a crystalline solid. A stock solution may be made by dissolving the 1H-1-ethyl candesartan cilexetil in the solvent of choice. 1H-1-ethyl Candesartan cilexetil is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of 1H-1-ethyl candesartan cilexetil in ethanol is approximately 3 mg/ml and approximately 30 mg/ml in DMSO and DMF. 1H-1-ethyl Candesartan cilexetil is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 1H-1-ethyl candesartan cilexetil should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. 1H-1-ethyl Candesartan cilexetil has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Candesartan cilexetil (Item No. 10489) is a prodrug of the potent, long-acting, and selective angiotensin II type 1 receptor (AT_{1}) antagonist, candesartan. Clinical trials indicate a 4-16 mg/day dose of candesartan cilexetil effectively reduces diastolic blood pressure. 1H-1-ethyl Candesartan cilexetil is a process-related impurity commonly found in the bulk synthesis of candesartan cilexetil. 2

References
