PRODUCT INFORMATION

Olmesartan Medoxomil
Item No. 11614

CAS Registry No.: 144689-63-4
Formal Name: 4-(1-hydroxy-1-methylethyl)-2-propyl-1-[[2'-(2H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl][methyl]-1H-imidazole-5-carboxylic acid, (5-methyl-2-oxo-1,3-dioxol-4-yl)methyl ester
Synonym: CS 866
MF: C_{29}H_{30}N_{6}O_{6}
FW: 558.6
Purity: ≥98%
UV/Vis.: \( \lambda_{\text{max}} \): 204, 256 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥2 years

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

Laboratory Procedures

Olmesartan medoxomil is supplied as a crystalline solid. A stock solution may be made by dissolving the olmesartan medoxomil in the solvent of choice. Olmesartan Medoxomil is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of olmesartan medoxomil in these solvents is approximately 0.2, 20, and 30 mg/ml, respectively.

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

Description

Olmesartan medoxomil is an orally bioavailable prodrug form of olmesartan (Item No. 23412), a nonpeptide angiotensin II antagonist that is selective for the angiotensin 1 (AT\textsubscript{1}) receptor over the AT\textsubscript{2} receptor.\textsuperscript{1} Olmesartan medoxomil (0.1 mg/kg) inhibits the angiotensin II pressor response in normotensive rats. It reduces both systolic and diastolic blood pressure in fructose-fed rats, a model of insulin resistance, when administered at a dose of 10 mg/kg per day, as well as in chow-fed control animals when administered at a dose of 11.4 mg/kg per day.\textsuperscript{2} Olmesartan medoxomil also inhibits increases in plasma levels of triglycerides and non-esterified fatty acids in fructose-fed rats. Formulations containing olmesartan medoxomil have been used in the treatment of hypertension.

References