
Product Data Sheet

Product Name: Cilazapril
 Cat. No.: GC12859

Chemical Properties

Cas. No. 88768-40-5

Chemical Name (4S,7S)-7-[[[(2S)-1-ethoxy-1-oxo-4-phenylbutan-2-yl]amino]-6-oxo-1,2,3,4,7,8,9,10-octahydropyridazino[1,2-a]diazepine-4-carboxylic acid

SMILES CCOC(=O)C(CCC1=CC=CC=C1)NC2CCCN3CCCC(N3C2=O)C(=O)O

Formula $C_{22}H_{31}N_3O_5$ M.Wt 417.5

Solubility Chloroform: slightly soluble, Ethanol: slightly soluble, Methanol: slightly soluble Storage Desiccate at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure

Background

Cilazapril is an inhibitor of angiotensin converting enzyme (ACE) with IC₅₀ value of 1.93nM [1].

Cilazapril is a monoethyl prodrug of cilazaprilat. The latter shows an IC₅₀ value of 1.93nM to rabbit lung ACE when using Hip-His-Leu substrate in vitro. Cilazaprilat is most potent among all the ACE inhibitors when the ACE is from rabbit lung, human plasma, hog kidney or human lung. Cilazaprilat is specific. It shows no inhibition to a variety of lipolytic and proteolytic enzymes even the concentration of it is up to more than 10000 fold higher than its IC₅₀ value. Cilazapril and cilazaprilat also show inhibition of the angiotensin I (AI) pressor response with ED₅₀ values of 0.44 and 0.06 mmol/kg. In addition, when cilazapril is treated as an antihypertensive drug, the maximum decrease in blood pressure relative to the control is 110mmHg on day 21 [1].

References:

Caution: Product has not been fully validated for medical applications. For research use only.

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[1] Waterfall JF. A review of the preclinical cardiovascular pharmacology of cilazapril, a new angiotensin converting enzyme inhibitor. Br J Clin Pharmacol. 1989;27

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