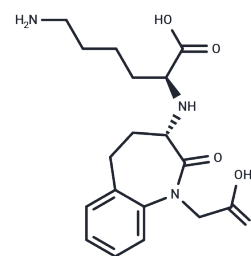


Libenzapril

Chemical Properties

CAS No. :	109214-55-3
Formula:	C ₁₈ H ₂₅ N ₃ O ₅
Molecular Weight:	363.41
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



Biological Description

Description	Libenzapril (CGS 16617) is a potent angiotensin-converting enzyme inhibitor used to study myocardial injury.
Targets(IC50)	Angiotensin-converting Enzyme (ACE)
In vivo	The effect of intravenous (i.v.) libenzapril was studied in six healthy males by administering i.v. angiotensin I (AI) was administered in stepwise increments of 20 ng/kg/5 min until the subjects' systolic blood pressure (SBP) had increased 20-30 mm Hg above baseline. The mean baseline infusion of 63 ng/kg/5 min resulted in a significant ($P < 0.05$) increase in the ratio of AII to AI plasma levels from 0.52 +/- 0.46 to 7.92 +/- 4.48 and a SBP increase of 120 +/- 7.1 to 147 +/- 5.6. Within 15 minutes of starting the 1-mg infusion of libenzapril over 1.5 hours, the AII/AI ratio decreased to baseline values, and the SBP returned to baseline in 1 hour. Repeat AI challenges at 3.5 and 5 hours postdose did not increase SBP significantly. Even the 6.5-hour challenge demonstrated only a slight increase in SBP, with an AII/AI ratio of 0.26. At 24 hours, SBP was only 40% of the baseline response, demonstrating that libenzapril is a potent long-acting ACE inhibitor.[1]

Solubility Information

Solubility	H ₂ O: 100 mg/mL (275.17 mM), Sonication is recommended. DMSO: < 1 mg/mL (insoluble or slightly soluble) (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.7517 mL	13.7586 mL	27.5171 mL
5 mM	0.5503 mL	2.7517 mL	5.5034 mL
10 mM	0.2752 mL	1.3759 mL	2.7517 mL
50 mM	0.055 mL	0.2752 mL	0.5503 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Tang JP, Rakhit A, Douglas FL, Melethil S. Effect of chronic hypertension on the blood-brain barrier permeability of libenzapril. *Pharm Res.* 1992 Feb;9(2):236-43. PubMed PMID: 1553348.

Morgan JM, Piraino AJ, Saris SD, Graham CS, Hirschhorn WL, Kochak GM, Choi RL. Inhibition of angiotensin-converting enzyme with libenzapril in normotensive males. *J Clin Pharmacol.* 1994 Dec;34(12):1177-82. PubMed PMID: 7738213.

Kochak GM, Choi RL, deSilva JK, Reydel-Bax P. Pharmacodynamic dependent disposition of the angiotensin converting enzyme inhibitor, libenzapril. *J Clin Pharmacol.* 1990 Feb;30(2):138-43. PubMed PMID: 2312764.

Tang JP, Xu ZQ, Douglas FL, Rakhit A, Melethil S. Increased blood-brain barrier permeability of amino acids in chronic hypertension. *Life Sci.* 1993;53(25):PL417-20. PubMed PMID: 7902950.

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