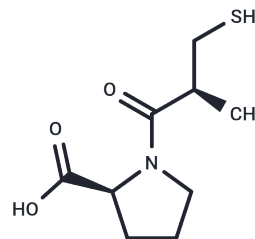


Captopril

Chemical Properties

CAS No. :	62571-86-2
Formula:	C ₉ H ₁₅ NO ₃ S
Molecular Weight:	217.29
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	Captopril (SA333) is a potent and specific inhibitor of peptidyl-dipeptidase A. It blocks the conversion of angiotensin I to angiotensin II, a vasoconstrictor and important regulator of arterial blood pressure.
Targets(IC50)	RAAS, Angiotensin-converting Enzyme (ACE)
Kinase Assay	Binding assay: Cells are plated in 24-well plates and cultured until confluence. Before the experiment, the cells are washed three times with 0.5 mL per well of DMEM at room temperature. After removal of the medium, 400 µL binding DMEM is added and the plate is then left for 15 min at 37 °C. For saturation binding assays cells are incubated with increasing concentrations [3H]Candesartan (final concentrations between 0.15 nM and 15 nM) in a final volume of 0.5 mL at 37 °C for 5 min to 180 min. For competition binding assays 50 µL of buffer or 50 µL of buffer containing increasing concentrations of unlabelled Candesartan is added. After 30 min, 50 µL of buffer containing [3H] Candesartan (final concentration 1.1 nM) or [3H]Candesartan (final concentration 1.0 nM) is added, and the cells are further incubated for 30 min at 37 °C.

Solubility Information

Solubility	H ₂ O: 21.7 mg/mL (99.87 mM), Sonication is recommended. DMSO: 50 mg/mL (230.11 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: < 10 mg/mL (46.02 mM), Lower concentrations may be soluble, but exact solubility limit is unknown. 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 10 mg/mL (46.02 mM), Suspension. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.6021 mL	23.0107 mL	46.0214 mL
5 mM	0.9204 mL	4.6021 mL	9.2043 mL
10 mM	0.4602 mL	2.3011 mL	4.6021 mL
50 mM	0.092 mL	0.4602 mL	0.9204 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

Andujar-Sanchez M, et al. FEBS Lett. 2007 Jul 24;581(18):3449-54.

Cheng S, Jin P, Li H, et al. Evaluation of CML TKI Induced Cardiovascular Toxicity and Development of Potential Rescue Strategies in a Zebrafish Model. Frontiers in Pharmacology. 2021: 2866.

Yang M, Wu H, Qian H, et al. Lingui Zhugan decoction delays ventricular remodeling in rats with chronic heart failure after myocardial infarction through the Wnt/ β -catenin signaling pathway. Phytomedicine. 2023: 155026.

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