Lisinopril dihydrate

Cat. No.: HY-18206A

CAS No.: 83915-83-7

Molecular Formula: $C_{21}H_{35}N_3O_7$

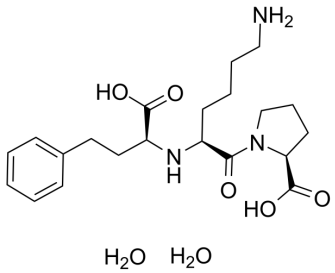
Molecular Weight: 441.52

Target: Angiotensin-converting Enzyme (ACE)

Pathway: Metabolic Enzyme/Protease

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	2 years
	-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

H_2O : 20 mg/mL (45.30 mM; Need ultrasonic)
DMSO : < 1 mg/mL (insoluble or slightly soluble)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.2649 mL	11.3245 mL	22.6490 mL
	5 mM	0.4530 mL	2.2649 mL	4.5298 mL
	10 mM	0.2265 mL	1.1325 mL	2.2649 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: PBS
Solubility: 50 mg/mL (113.25 mM); Clear solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

Lisinopri dihydrate (MK-521 dihydrate) is angiotensin-converting enzyme inhibitor, used in treatment of hypertension, congestive heart failure, and heart attacks.

IC_{50} & Target

ACE.

In Vitro

Lisinopri dihydrate is a potent, competitive inhibitor of angiotensin-converting enzyme (ACE), the enzyme responsible for the conversion of angiotensin I (ATI) to angiotensin II (ATII). ATII regulates blood pressure and is a key component of the renin-angiotensin-aldosterone system (RAAS). Lisinopril may be used to treat hypertension and symptomatic congestive heart failure, to improve survival in certain individuals following myocardial infarction, and to prevent progression of renal disease in hypertensive patients with diabetes mellitus and microalbuminuria or overt nephropathy[1][2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Nat Commun. 2023 Sep 21;14(1):5891.
- Biomedicines. 2022, 10(7), 1661.
- Hum Cell. 2020 Apr;33(2):330-336.
- Am J Physiol Renal Physiol. 2021 Aug 1;321(2):F149-F161.

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REFERENCES

[1]. Andujar-Sanchez, M., V. Jara-Perez, and A. Camara-Artigas, Thermodynamic determination of the binding constants of angiotensin-converting enzyme inhibitors by a displacement method. FEBS Lett, 2007. 581(18): p. 3449-54.

[2]. Song, J.C. and C.M. White, Clinical pharmacokinetics and selective pharmacodynamics of new angiotensin converting enzyme inhibitors: an update. Clin Pharmacokinet, 2002. 41(3): p. 207-24.

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