## Ramipril-d3

MedChemExpress

Cat. No.:	HY-B0279S1	
CAS No.:	2673269-81-1	o <sub>≼</sub> oho o
Molecular Formula:	$C_{23}H_{29}D_{3}N_{2}O_{5}$	
Molecular Weight:	419.53	
Target:	Apoptosis; Angiotensin-converting Enzyme (ACE)	
Pathway:	Apoptosis; Metabolic Enzyme/Protease	$\sim$
Storage:	Please store the product under the recommended conditions in the Certificate of	
	Analysis.	

Product Data Sheet

BIOLOGICAL ACTIVITY		
DIDEOGRAF ACTIVITY		
Description	Ramipril-d <sub>3</sub> is the deuterium labeled Ramipril[1]. Ramipril (HOE-498) is an angiotensin-converting enzyme (ACE) inhibitor with IC50 of 5 nM.	
In Vitro	Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential affect the pharmacokinetic and metabolic profiles of drugs <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	

## REFERENCES

[1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019 Feb;53(2):211-216.

[2]. Raasch, W., et al., Combined blockade of AT1-receptors and ACE synergistically potentiates antihypertensive effects in SHR. J Hypertens, 2004. 22(3): p. 611-8.

[3]. Stevens, B.R., M.I. Phillips, and A. Fernandez, Ramipril inhibition of rabbit (Oryctolagus cuniculus) small intestinal brush border membrane angiotensin converting enzyme. Comp Biochem Physiol C, 1988. 91(2): p. 493-7.

[4]. Kohlstedt, K., et al., Angiotensin-converting enzyme is involved in outside-in signaling in endothelial cells. Circ Res, 2004. 94(1): p. 60-7.

[5]. Ceconi, C., et al., Differences in the effect of angiotensin-converting enzyme inhibitors on the rate of endothelial cell apoptosis: in vitro and in vivo studies. Cardiovasc Drugs Ther, 2007. 21(6): p. 423-9.

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

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