# Imidaprilate-$d_5$

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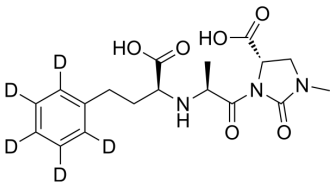
| **Cat. No.:** | HY-109592S |
| **Molecular Formula:** | $C_{18}H_{18}D_5N_3O_6$ |
| **Molecular Weight:** | 382.42 |
| **Target:** | Angiotensin-converting Enzyme (ACE); Isotope-Labeled Compounds |
| **Pathway:** | Metabolic Enzyme/Protease; Others |
| **Storage:** | Please store the product under the recommended conditions in the Certificate of Analysis. |



## BIOLOGICAL ACTIVITY

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| **Description** | Imidaprilate-$d_5$ is deuterium labeled Imidaprilate. Imidaprilate is an active metabolite of TA-6366, acts as a potent angiotensin converting enzyme (ACE) inhibitor, with an IC50 of 2.6 nM, and is used in the research of hypertensive disease. |
| **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 to affect the pharmacokinetic and metabolic profiles of drugs[1].<br>MCE has not independently confirmed the accuracy of these methods. They are for reference only. |

## REFERENCES

[1]. Kubo M, et al. Pharmacological studies on (4S)-1-methyl-3-[(2S)-2-[N-((1S)-1-ethoxycarbonyl-3-phenylpropyl)amino] propionyl]-2-oxo-imidazolidine-4-carboxylic acid hydrochloride (TA-6366), a new ACE inhibitor: I. ACE inhibitory and anti-hypertensive activities. Jpn J Pharmacol. 1990 Jun;53(2):201-10.

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



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