

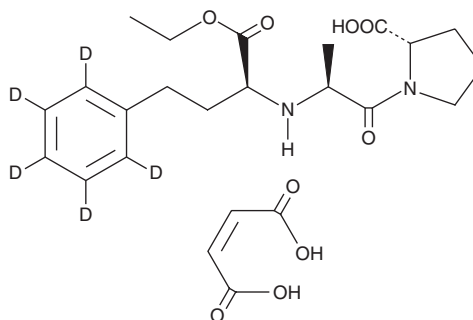
PRODUCT INFORMATION



Enalapril-d₅ (maleate)

Item No. 25318

CAS Registry No.: 349554-02-5
Formal Name: N-[1-(ethoxycarbonyl)-3-(phenyl-d₅)propyl]-L-alanyl-L-proline, 2Z-butenedioate
MF: C₂₀H₂₃D₅N₂O₅ • C₄H₄O₄
FW: 497.6
Chemical Purity: ≥98% (Enalapril)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₅); ≤1% d₀
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Enalapril-d₅ (maleate) is intended for use as an internal standard for the quantification of enalapril (Item No. 16041) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

Enalapril-d₅ (maleate) is supplied as a solid. A stock solution may be made by dissolving the enalapril-d₅ (maleate) in the solvent of choice, which should be purged with an inert gas. Enalapril-d₅ (maleate) is soluble in ethanol and methanol.

Description

Enalapril is an inhibitor of angiotensin-converting enzyme (ACE; IC₅₀ = 1.2 nM in porcine plasma).¹ *In vivo*, enalapril (0.05-1 mg/kg, p.o.) inhibits pressor responses induced by angiotensin I (Item No. 24737) in rats and dogs in a dose-dependent manner. Enalapril reduces heart rate, systolic and diastolic blood pressures, and heart weight/body weight ratio in salt-sensitive and -resistant Dahl rats fed a high-salt or low-salt diet.² Formulations containing enalapril have been used for the treatment of hypertension, congestive heart failure, myocardial infarction, and diabetic nephropathies.³

References

1. Gross, D.M., Sweet, C.S., Ulm, E.H., *et al.* Effect of N-[(S)-1-carboxy-3-phenylpropyl]-L-Ala-L-Pro and its ethyl ester (MK-421) on angiotensin converting enzyme in vitro and angiotensin I pressor responses *in vivo*. *J. Pharmacol. Exp. Ther.* **216**(3), 552-557 (1981).
2. Sharma, J.N., Fernandez, P.G., Kim, B.K., *et al.* Cardiac regression and blood pressure control in the Dahl rat treated with either enalapril maleate (MK 421, an angiotensin converting enzyme inhibitor) or hydrochlorothiazide. *J. Hypertens.* **1**(3), 251-256 (1983).
3. Redelinghuys, P., Nchinda, A.T., and Sturrock, E.D. Development of domain-selective angiotensin I-converting enzyme inhibitors. *Ann. N.Y. Acad. Sci.* **1056**(1), 160-175 (2005).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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