



SZABO SCANDIC

Part of Europa Biosite

Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!



Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC Handels GmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

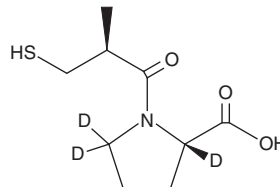
[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

PRODUCT INFORMATION



Captopril-d₃ Item No. 25235

CAS Registry No.: 1356383-38-4
Formal Name: (S)-1-((S)-3-mercapto-2-methylpropanoyl)pyrrolidine-2-carboxylic-2,5,5-d₃ acid
MF: C₉H₁₂D₃NO₃S
FW: 220.3
Chemical Purity: ≥98% (Captopril)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₃); ≤1% d₀
Supplied as: A solid
Storage: -20°C
Stability: ≥2 years



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

Laboratory Procedures

Captopril-d₃ is intended for use as an internal standard for the quantification of captopril (Item No. 15313) 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).

Captopril-d₃ is supplied as a solid. A stock solution may be made by dissolving the captopril-d₃ in the solvent of choice. Captopril-d₃ is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of captopril-d₃ in these solvents is approximately 30 mg/ml.

Description

Captopril is a first generation nonpeptidic ACE inhibitor (IC₅₀ = 6.3 nM) that was designed based on bradykinin-potentiating peptides isolated from the venom of *B. jararaca*, a pit viper native to Brazil.¹⁻³ It does not exhibit a domain preference for binding either the C- or N-terminal active sites of the somatic form of ACE.¹ Acute and chronic administration of captopril reduces blood pressure in spontaneously hypertensive Wistar-Kyoto rats and does not induce hypotension in salt-repleted normotensive Wistar-Kyoto rats.⁴ Captopril is also a competitive and reversible inhibitor of leukotriene (LTA₄) hydrolase, which results in the disruption of LTB₄ synthesis with an IC₅₀ value of 14 μM.⁵

References

1. Dalkas, G.A., Marchand, D., Galleyrand, J.C., *et al.* Study of a lipophilic captopril analogue binding to angiotensin I converting enzyme. *J. Pept. Sci.* **16**(2), 91-97 (2010).
2. 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).
3. Cushman, D.W. and Ondetti, M.A. Design of angiotensin converting enzyme inhibitors. *Nat. Med.* **5**(10), 1110-1113 (1999).
4. Rubin, B., Antonaccio, M.J., and Horovitz, Z.P. Captopril (SQ 14,225) (D-3-mercapto-2-methylpropanoyl-L-proline): A novel orally active inhibitor of angiotensin-converting enzyme and antihypertensive agent. *Prog. Cardiovasc. Dis.* **21**(3), 183-194 (1978).
5. Orning, L., Krivi, G., Bild, G., *et al.* Inhibition of leukotriene A₄ hydrolase/aminopeptidase by captopril. *J. Biol. Chem.* **266**(25), 16507-16511 (1991).

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.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 06/15/2018

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM