



**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 HandelsgmbH

Quellenstraße 110, A-1100 Wien

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

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

[mail@szabo-scandic.com](mailto:mail@szabo-scandic.com)

[www.szabo-scandic.com](http://www.szabo-scandic.com)

[linkedin.com/company/szaboscandic](http://linkedin.com/company/szaboscandic)



# PRODUCT INFORMATION



## Benazepril-d<sub>5</sub> (hydrochloride)

Item No. 30978

CAS Registry No.: 1279026-26-4

Formal Name: 2-((S)-3-(((S)-1-ethoxy-1-oxo-4-(phenyl-d<sub>5</sub>)butan-2-yl)amino)-2-oxo-2,3,4,5-tetrahydro-1H-benzo[b]azepin-1-yl)acetic acid, monohydrochloride

Synonym: CGS 14824A-d<sub>5</sub>

MF: C<sub>24</sub>H<sub>23</sub>D<sub>5</sub>N<sub>2</sub>O<sub>5</sub> • HCl

FW: 466.0

Chemical Purity: ≥95% (Benazepril)

Deuterium

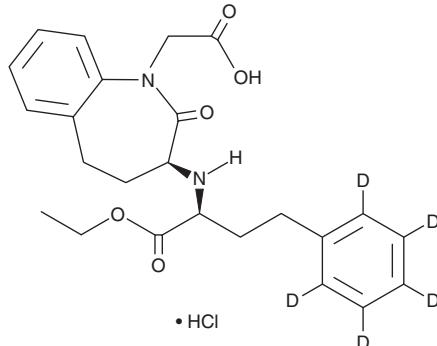
Incorporation: ≥99% deuterated forms (d<sub>1</sub>-d<sub>5</sub>); ≤1% d<sub>0</sub>

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

Benazepril-d<sub>5</sub> (hydrochloride) is intended for use as an internal standard for the quantification of benazepril (Item No. 23804) 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).

Benazepril-d<sub>5</sub> (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the benazepril-d<sub>5</sub> (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Benazepril-d<sub>5</sub> (hydrochloride) is slightly soluble in methanol, ethanol, and DMSO.

### Description

Benazepril is a prodrug of the angiotensin converting enzyme (ACE) inhibitor benazeprilat (Item No. 21796).<sup>1</sup> It is metabolized to benazeprilat by hepatic esterases. Benazepril inhibits the *in vitro* enzymatic activity of partially purified ACE isolated from rabbit lung ( $IC_{50} = 2$  nM).<sup>2</sup> It decreases the triglyceride and total cholesterol levels in normotensive rats when administered at a dose of 30 mg/kg and decreases aortic atherosclerosis in cholesterol-fed rabbits when administered at a dose of 3 mg/kg per day.<sup>3</sup> Benazepril (0.1-10 mg/kg per day) reduces blood pressure in spontaneously hypertensive rats.<sup>4</sup> It also decreases proteinuria in cats with chronic kidney disease when administered at doses ranging from 0.5 to 1 mg/kg per day.<sup>5</sup> Formulations containing benazepril have been used to treat hypertension, congestive heart failure, and chronic kidney disease in both human and veterinary medicine.

### References

1. Toutain, P.L. and Lefèuvre, H.P. *J. Vet. Pharmacol. Ther.* **27**(6), 515-525 (2004).
2. Ksander, G.M., Erion, M., Yuan, A.M., et al. *J. Med. Chem.* **37**(12), 1823-1832 (1994).
3. Yamamoto, S., Takemori, E., Hasegawa, Y., et al. *Arzneimittelforschung* **41**(9), 913-923 (1991).
4. Watthey, J.W.H., Stanton, J.L., Desai, M., et al. *J. Med. Chem.* **28**(10), 1511-1516 (1985).
5. King, J.N., Gunn-Moore, D.A., Tasker, S., et al. *J. Vet. Intern. Med.* **20**(5), 1054-1064 (2006).

#### 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.

### 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