

# PRODUCT INFORMATION

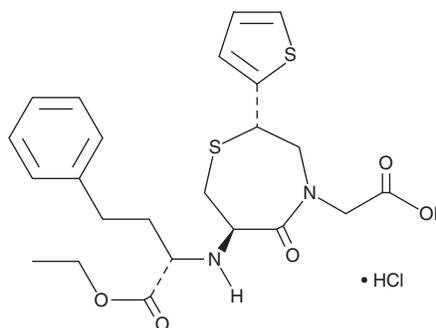


## Temocapril (hydrochloride)

Item No. 18241

**CAS Registry No.:** 110221-44-8  
**Formal Name:** 6-[[[(1S)-1-(ethoxycarbonyl)3-phenylpropyl]amino]tetrahydro-5-oxo-2-(2-thienyl)-1,4-thiazepine-4(5H)-acetic acid, monohydrochloride

**Synonym:** CS 622  
**MF:** C<sub>23</sub>H<sub>28</sub>N<sub>2</sub>O<sub>5</sub>S<sub>2</sub> • HCl  
**FW:** 513.1  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 233 nm  
**Supplied as:** A crystalline 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

Temocapril (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the temocapril (hydrochloride) in the solvent of choice. Temocapril (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of temocapril (hydrochloride) in these solvents is approximately 1, 20, and 30 mg/ml, respectively.

Temocapril (hydrochloride) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, temocapril (hydrochloride) should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Temocapril (hydrochloride) has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Temocapril is a prodrug form of the angiotensin-converting enzyme (ACE) inhibitor temocaprilat (Item No. 22169).<sup>1</sup> Temocapril is converted to temocaprilat by carboxylesterase 1 (CES1).<sup>2</sup> It prevents impairment of acetylcholine-induced relaxation in aortic rings isolated from diabetic rats in a model of streptozotocin-induced diabetes.<sup>3</sup> Temocapril (0.1, 0.3, and 1 mg/kg) inhibits the angiotensin I-induced pressor response in normotensive rats.<sup>1</sup> It prevents coronary vascular remodeling induced by L-NAME (Item No. 80210) in rats when administered at 0.1 mg/ml in the drinking water.<sup>4</sup> Temocapril (1 mg/kg) reduces plasma glucose levels in a KKAY mouse model of type 2 diabetes.<sup>5</sup>

### Reference

1. Oizumi, K., Koike, H., Sada, T., et al. *Jpn. J. Pharmacol.* **48(3)**, 349-356 (1988).
2. Furihata, T., Hosokawa, M., Koyano, N., et al. *Drug Metab. Dispos.* **32(10)**, 1170-1177 (2004).
3. Pieper, G.M. and Siebeneich, W. *Eur. J. Pharmacol.* **403(1-2)**, 129-132 (2000).
4. Takemoto, M., Egashira, K., Tomita, H., et al. *Hypertension* **30(6)**, 1621-1627 (1997).
5. Shiuchi, T., Cui, T.-X., Wu, L., et al. *Hypertension* **40(3)**, 329-334 (2002).

#### 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, 12/02/2022

#### 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