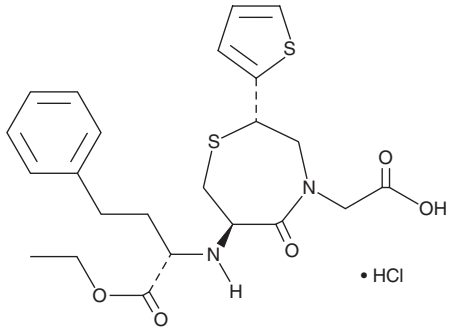
PRODUCT INFORMATION

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:	$C_{23}H_{28}N_2O_5S_2$ • HCl
FW:	513.1
Purity:	≥98%
UV/Vis.:	λ_{max}: 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).[1] Temocapril is converted to temocaprilat by carboxylesterase 1 (CES1).[2] It prevents impairment of acetylcholine-induced relaxation in aortic rings isolated from diabetic rats in a model of streptozotocin-induced diabetes.[3] Temocapril (0.1, 0.3, and 1 mg/kg) inhibits the angiotensin I-induced pressor response in normotensive rats.[1] 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.[4] Temocapril (1 mg/kg) reduces plasma glucose levels in a KKAy mouse model of type 2 diabetes.[5]

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).

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