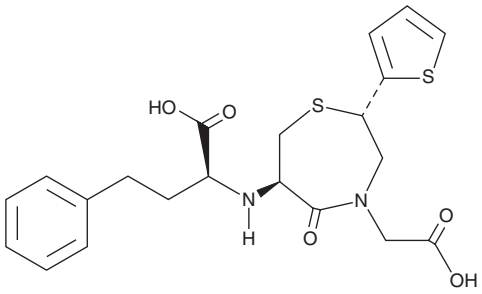
PRODUCT INFORMATION

Temocaprilat

Item No. 22169

CAS Registry No.:	110221-53-9
Formal Name:	(2S,6R)-6-[[(1S)-1-carboxy-3-phenylpropyl]amino]tetrahydro-5-oxo-2-(2-thienyl)-1,4-thiazepine-4(5H)-acetic acid
Synonyms:	CS 622 Diacid, RS 5139, Temocapril Diacid
MF:	$C_{21}H_{24}N_2O_5S_2$
FW:	448.6
Purity:	≥98%
UV/Vis.:	λ_{max}: 234 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

Temocaprilat is supplied as a crystalline solid. A stock solution may be made by dissolving the temocaprilat in the solvent of choice. Temocaprilat is soluble in organic solvents such as DMSO and dimethyl formamide, which should be purged with an inert gas. The solubility of temocaprilat in these solvents is approximately 3 and 5 mg/ml, respectively. Temocaprilat is slightly soluble in ethanol.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of temocaprilat can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of temocaprilat in PBS, pH 7.2, is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Temocaprilat is an inhibitor of angiotensin-converting enzyme (ACE; IC_{50} = 3.6 nM for rabbit lung ACE).[1] It inhibits contraction of isolated rat aorta induced by angiotensin I (Item No. 24737) with an IC_{50} value of 7.6 nM. Temocaprilat (1-30 µg/kg, i.v.) inhibits angiotensin I-induced pressor responses in anesthetized rats in a dose-dependent manner.

Reference

1. Oizumi, K., Koike, H., Sada, T., *et al*. Pharmacological profiles of CS-622, a novel angiotensin converting enzyme inhibitor. *Jpn. J. Pharmacol.* **48(3)**, 349-356 (1988).

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