

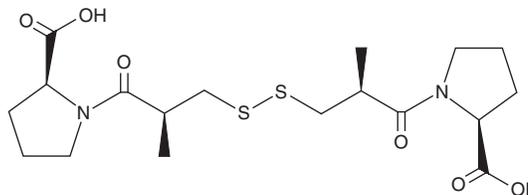
PRODUCT INFORMATION



Captopril Disulfide

Item No. 28018

CAS Registry No.: 64806-05-9
Formal Name: 1,1'-[dithiobis[(2S)-2-methyl-1-oxo-3,1-propanediyl]]bis-L-proline
Synonym: SQ 14,551
MF: C₁₈H₂₈N₂O₆S₂
FW: 432.6
Purity: ≥95%
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

Captopril disulfide is supplied as a solid. A stock solution may be made by dissolving the captopril disulfide in the solvent of choice, which should be purged with an inert gas. Captopril disulfide is slightly soluble in ethanol (sonicated) and DMSO.

Description

Captopril disulfide is a metabolite and symmetrical disulfide form of the angiotensin converting enzyme (ACE) inhibitor captopril (Item No. 15313).¹ Captopril disulfide is the main degradation product of captopril and is formed by oxidation.² It is a potential impurity in commercial preparations of captopril. Captopril disulfide inhibits angiotensin I-induced increases in mean arterial pressure in anesthetized dogs (ID₅₀ = 0.231 mg/kg, i.v.).³

References

1. Komai, T., Ikeda, T., Kawai, K., *et al.* *In vitro* studies on the metabolic pathway of SQ 14225 (Captopril) and mechanism of mixed disulfide formation. *J. Pharmacobiodyn.* **4(9)**, 677-684 (1981).
2. Pasquini, B., Orlandini, S., Caprini, C., *et al.* Cyclodextrin- and solvent-modified micellar electrokinetic chromatography for the determination of captopril, hydrochlorothiazide and their impurities: A quality by design approach. *Talanta* **160**, 332-339 (2016).
3. O'Hara, N., Ono, H., and Hashimoto, K. Potentiation of bradykinin-induced decrease of blood pressure in dogs by SO 14,551, the disulfide metabolite of captopril. *Jpn. J. Pharmacol.* **32(5)**, 934-937 (1982).

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.

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