

Store at  
-20°C

# Captopril

#53537

1 gram



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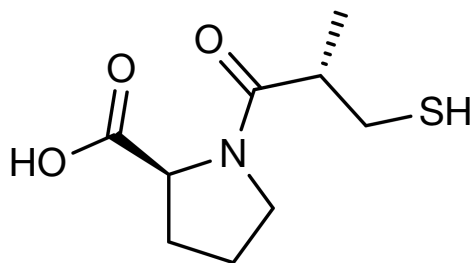
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New 04/20

## For Research Use Only. Not For Use In Diagnostic Procedures.

**Background:** Captopril is a selective and reversible angiotensin-converting enzyme (ACE) inhibitor with an  $IC_{50}$  value of 0.022  $\mu$ M (1). This small molecule selectively lowers angiotensin II, a hormone that when upregulated has been linked to increased hypertension, atherosclerosis, myocardial hypertrophy, and obesity (2-5). Captopril has also been shown to regulate inflammatory pathways as a reversible inhibitor of leukotriene A4 (LTA4) hydrolase, reducing leukotriene B4 synthesis (6).

**Molecular Formula:**  $C_9H_{15}NO_3S$



**Molecular Weight:** 217.3 g/mol

**Purity:** >98%

**CAS:** 62571-86-2

**Solubility:** Soluble in DMSO at 20 mg/ml or water at 20 mg/ml.

**Storage:** Store lyophilized at -20°C, desiccated. In lyophilized form, the chemical is stable for 24 months. Once in solution, store at -20°C and use within 1 month to prevent loss of potency. *Aliquot to avoid multiple freeze/thaw cycles.*

**Directions for Use:** Captopril is supplied as a lyophilized powder. For a 20 mM stock, reconstitute 5 mg of powder in 1.15 ml of DMSO. Working concentrations and length of treatment can vary depending on the desired effect.

### Background References:

- (1) Fujita, H. and Yoshikawa, M. (1999) *Immunopharmacology* 44, 123-7.
- (2) Bolterman, R.J. et al. (2005) *Hypertension* 46, 943-7.
- (3) Vajapey, R. et al. (2014) *Front Physiol* 5, 439.
- (4) Wu, C. et al. (2011) *N Am J Med Sci (Boston)* 4, 183-90.
- (5) Putnam, K. et al. (2012) *Am J Physiol Heart Circ Physiol* 302, H1219-30.
- (6) Orning, L. et al. (1991) *J Biol Chem* 266, 16507-11.

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**Applications:** W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide **Species Cross-Reactivity:** H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.