

Store at  
-20C  
#53537**Captopril**

1 g



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**Background**

Captopril is a selective and reversible angiotensin-converting enzyme (ACE) inhibitor with an IC<sub>50</sub> value of 0.022 μM (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<sub>9</sub>H<sub>15</sub>NO<sub>3</sub>S

**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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