

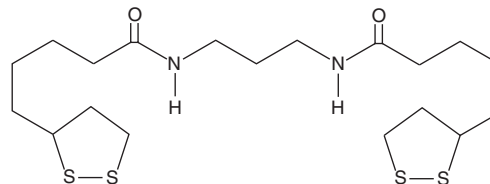
# PRODUCT INFORMATION



## AN-7

Item No. 10006212

**CAS Registry No.:** 691410-93-2  
**Formal Name:** N,N'-1,3-propanediylbis-1,2-dithiolane-3-pentanamide  
**MF:** C<sub>19</sub>H<sub>34</sub>N<sub>2</sub>O<sub>2</sub>S<sub>4</sub>  
**FW:** 450.7  
**Purity:** ≥98%  
**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

AN-7 is supplied as a crystalline solid. A stock solution may be made by dissolving the AN-7 in the solvent of choice, which should be purged with an inert gas. AN-7 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of AN-7 in these solvents is approximately 2, 20, and 10 mg/ml, respectively.

AN-7 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, AN-7 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. AN-7 has a solubility of approximately 0.15 mg/ml in a 1:4 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

$\alpha$ -Lipoic acid is a cyclic disulfide antioxidant that interconverts with its reduced dithiol form. It is an essential cofactor for decarboxylation reactions of the citric acid cycle and acts as a general antioxidant.<sup>1</sup> AN-7 is a more lipophilic analog of  $\alpha$ -lipoic acid with enhanced potency and 1.5-fold increased maximal capacity to stimulate glucose transport into myocytes.<sup>2</sup> This identifies the analogs of lipoic acid as potential new treatments for diabetes.

### References

1. Biewenga, G.P., Haenen, G.R.M.M., and Bast, A. The pharmacology of the antioxidant lipoic acid. *Gen. Pharmacol.* **29(3)**, 315-331 (1997).
2. Gruzman, A., Hidmi, A., Katzhendler, J., *et al.* Synthesis and characterization of new and potent  $\alpha$ -lipoic acid derivatives. *Bioorg. Med. Chem.* **12(5)**, 1183-1190 (2004).

#### 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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