

**Product Name:** Calpeptin

**Catalog No.:** 0448

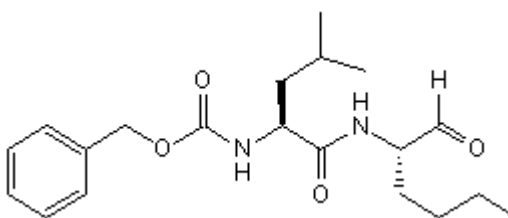
**Batch No.:** 4

CAS Number: 117591-20-5

IUPAC Name: *N*-Benzyloxycarbonyl-L-leucylnorleucinal

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>20</sub>H<sub>30</sub>N<sub>2</sub>O<sub>4</sub>  
**Batch Molecular Weight:** 362.46  
**Physical Appearance:** White solid  
**Solubility:** DMSO to 100 mM  
**Storage:** Desiccate at +4°C  
**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**TLC:** R<sub>f</sub> = 0.25 (Ethyl acetate)  
**Melting Point:** Between 103 - 105°C  
**<sup>1</sup>H NMR:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen		
Theoretical	66.27	8.34	7.73	0	0
Found	66.15	8.44	7.65	0	0

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**Description:**

Potent, cell-permeable inhibitor of the Ca<sup>2+</sup>-dependent protease, calpain. Prevents collagen- and thrombin-induced platelet aggregation, probably by blocking calpain induced phospholipase C and thromboxane synthase activation. Potent cathepsin L inhibitor. Recently shown to preferentially inhibit a subset of protein-tyrosine phosphatases.

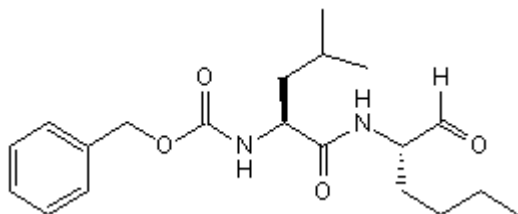
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**References:**

**Tsujinaka et al** (1988) Synthesis of a new cell penetrating calpain inhibitor (calpeptin). *Biochem.Biophys.Res.Commun.* **153** 1201. PMID: 2839170.

**Sasaki et al** (1990) Inhibitory effect of di- and tripeptidyl aldehydes on calpains and cathepsins. *J.Enzyme Inhib.* **3** 195. PMID: 2079636.

**Mehdi** (1991) Cell-penetrating inhibitors of calpain. *TiBS* **16** 150. PMID: 1877091.

**Schoenwaelder and Burridge** (1999) Evidence for a calpeptin-sensitive protein-tyrosine phosphatase upstream of the small GTPase Rho. *J.Biol.Chem.* **274** 14359. PMID: 10318859.

**Storage:** Desiccate at +4°C

**Solubility & Usage Info:**

DMSO to 100 mM

**Stability and Solubility Advice:**

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

**SOLIDS:** Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

**SOLUTIONS:** We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

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