# Certificate of Analysis



**Product Name:** **$(Z\text{-}LL)_2$ ketone** **Catalog No.: 5630** **Batch No.: 1**

CAS Number: 313664-40-3

IUPAC Name: 2,2'-(2-Oxo-1,3-propanediyl)bis[*N*-[(phenylmethoxy)carbonyl]-L-leucyl-L-leucinamide

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** $C_{43}H_{64}N_6O_9$.

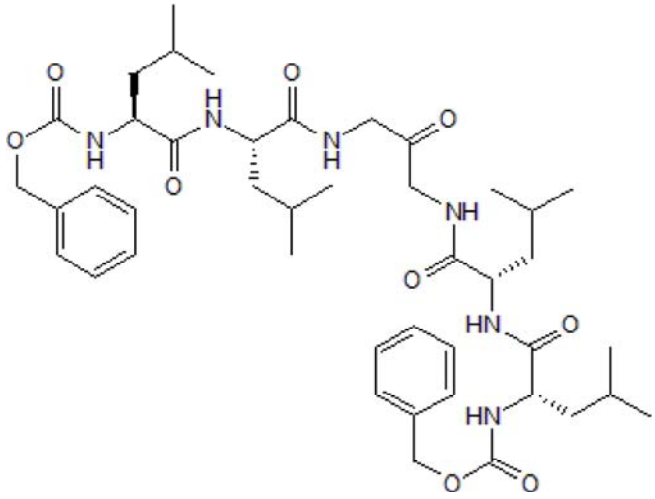
**Batch Molecular Weight:** 809

**Physical Appearance:** White solid

**Solubility:** DMSO to 10 mM

**Storage:** Store at -20°C

**Batch Molecular Structure:**



## 2. ANALYTICAL DATA

**HPLC:** Shows 99.5% purity

**Optical Rotation:** $[\alpha]_D$ = -46.2 (Concentration = 1.35, Solvent = Acetic acid)

**Microanalysis:**

| | Carbon | Hydrogen | Nitrogen |
|---|---|---|---|
| Theoretical | 63.84 | 7.97 | 10.39 |
| Found | 63.82 | 8.02 | 10.37 |



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# Product Information



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CAS Number: 313664-40-3

IUPAC Name: 2,2'-(2-Oxo-1,3-propanediyl)bis[*N*-[(phenylmethoxy)carbonyl]-L-leucyl-L-leucinamide

**Description:**

Putative inhibitor of signal peptide peptidase; inhibits p-Prl signal peptide processing ($IC_{50}$ = 50 nM). Exhibits no effect on signal peptidases or proteasome activity. Reduces HSV-1 replication in vitro and in vivo.

**Physical and Chemical Properties:**

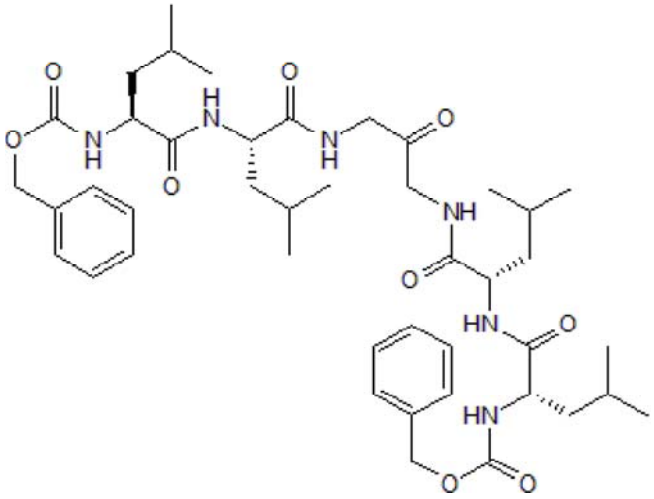
Batch Molecular Formula: $C_{43}H_{64}N_6O_9$.

Batch Molecular Weight: 809

Physical Appearance: White solid

**Minimum Purity:** >95%

**Batch Molecular Structure:**



**Storage:** Store at -20°C

**Solubility & Usage Info:**

DMSO to 10 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.

**References:**

**Allen** *et al* (2014) Inhibitors of signal peptide peptidase (SPP) affect HSV-1 infectivity *in vitro* and *in vivo*. Exp.Eye Res. ***123*** 8. PMID: 24768597.

**Weihofen** *et al* (2003) Targeting presenilin-type aspartic protease signal peptide peptidase with γ-secretase inhibitors. J.Biol.Chem. ***278*** 16528. PMID: 12621027.

**Weihofen** *et al* (2000) Release of signal peptide fragments into the cytosol requires cleavage in the transmembrane region by a protease activity that is specifically blocked by a novel cysteine protease inhibitor. J.Biol.Chem. ***275*** 30951. PMID: 10921927.