

# Certificate of Analysis

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**Product Name:** (R)-MG 132

**Catalog No.:** 6033

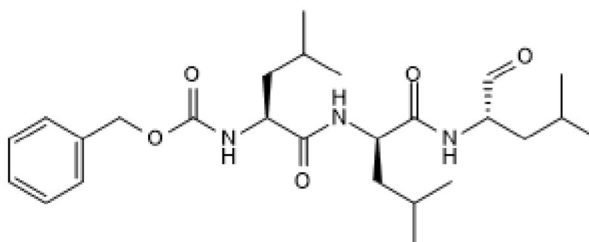
**Batch No.:** 1

**CAS Number:** 1211877-36-9

**IUPAC Name:** N-[(Phenylmethoxy)carbonyl]-L-leucyl-N-[(1S)-1-formyl-3-methylbutyl]-D-leucinamide

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>26</sub>H<sub>41</sub>N<sub>3</sub>O<sub>5</sub>  
**Batch Molecular Weight:** 475.63  
**Physical Appearance:** White solid  
**Solubility:** DMSO to 100 mM  
 ethanol to 20 mM  
**Storage:** Store at -20°C  
**Batch Molecular Structure:**



## 2. ANALYTICAL DATA

**HPLC:** Shows 97.9% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon Hydrogen Nitrogen		
Theoretical	65.66	8.69	8.83
Found	65.83	8.56	8.68

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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**Description:**

(R)-MG 132 is a potent 20S proteasome inhibitor ( $IC_{50}$  = 0.22 nM). Exhibits cytostatic and cytotoxic effects in tumor cells in vitro.

**Physical and Chemical Properties:**

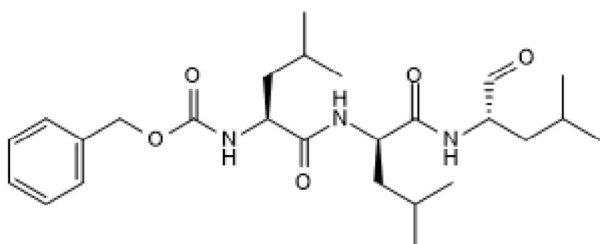
Batch Molecular Formula:  $C_{26}H_{41}N_3O_5$

Batch Molecular Weight: 475.63

Physical Appearance: White solid

**Minimum Purity:** ≥98%

**Batch Molecular Structure:**



**Storage:** Store at -20°C

**Solubility & Usage Info:**

DMSO to 100 mM

ethanol to 20 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. \*Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

**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:**

**Mroczkiewicz *et al*** (2010) Studies of the synthesis of all stereoisomers of MG-132 proteasome inhibitors in the tumor targeting approach. *J.Med.Chem.* **53** 1509. PMID: 20112914.

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