# **MG-132**

A potent proteasome inhibitor that blocks protein degradation, crucial for investigating protein turnover and the ubiquitin-proteasome pathway.

MG-132 is a potent, cell permeable and selective proteasome inhibitor ( $\rm K_i$  = 4nM).1 It inhibits NF-κB activation by preventing IκB degradation (IC $_{50}$  = 3μM). The peptide blocks degradation of short-lived proteins, which in turn induces HSP and ER chaperone expression, leading to thermotolerance (1μM MG-132, 2 h.). It also stimulates neurite outgrowth in PC12 cells (20nM optimal). The peptide has also been reported to increase the survival rate of mesenchymal stem cells following their transplantation. IC  $_{50}$ 's for inhibition of Suc-LLVY-AMC and Z-LLL-AMC cleaving activities of proteasome were 0.85 and 0.1μM respectively. The ubiquitin-proteasome system (UPS) and autophagy serve as two complementary, reciprocally regulated protein degradation systems, thus blockade of UPS by MG-132 activates autophagy.

Citations: 143

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## **Ordering Information**

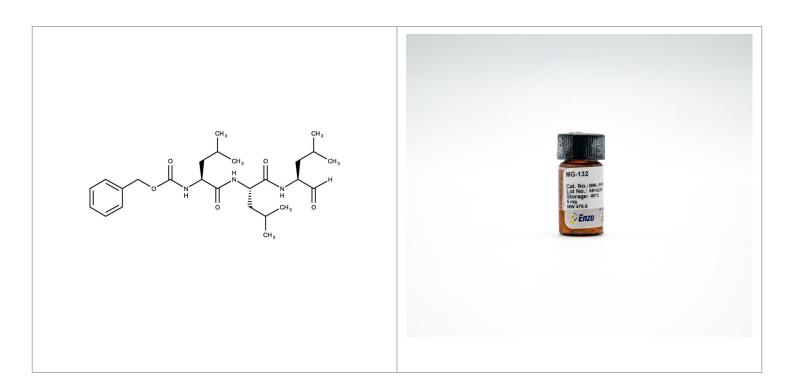
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BML-PI102-0005	5mg	
BML-PI102-0025	25mg	

Manuals, SDS & CofA

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- High purity peptide
- Most economical MG-132 on the market
- Widely cited for more than two decades
- Well-characterized with a variety of applications



## **Handling & Storage**

**Use/Stability** As indicated on product label or CoA when stored as recommended. Solutions are

stable for up to one week if stored at -20°C. Solutions are stable for up to two months if

stored at -80°C.

Long Term Storage -80°C

Shipping Dry Ice

#### Regulatory Status RUO - Research Use Only

#### **Product Details**

Alternative Name Z-LLL-CHO

Appearance White solid.

CAS 133407-82-6

Formula  $C_{26}H_{41}N_3O_5$ 

**MW** 475.6

Purity ≥98%

Sequence Z-Leu-Leu-CHO

**Solubility** Soluble in DMSO (25mg/ml) or 100% ethanol (25mg/ml).

Technical Info / Product Notes Replacement for ADI-HPK-116</strong

Last modified: May 29, 2024

