

## **MG-132**

## Cat. # F1100, F1101,F1102

Also Known as: MG132, Z-LLL-al, Z-Leu-Leu-Leu-CHO

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

 MW:
 475.6 Da

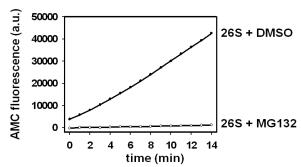
 CAS No.:
 133407-82-6

 Source:
 Synthetic

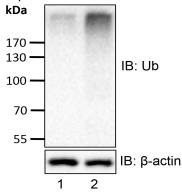
Form: Lyophilized Powder Solubility: Soluble in DMSO

Concentration: N/A

Quality Assurance: >98% by HPLC and NMR



100 nM bovine 26S proteasome (Cat. # A1200) was incubated with DMSO or with  $10~\mu\text{M}$  MG-132 (Cat. # F1100) for 10 min at 37 °C in 20 mM Tris, pH 7.1, 50 mM NaCl, 2 mM ATP, 5 mM MgCl $_2$ , 2 mM bME and 10% glycerol. The proteasome was then diluted 10X into 50  $\mu\text{M}$  SUC-LLVY-AMC (Cat. # G1100) in a buffer containing 20 mM Tris, pH 7.1, 2 mM bME. The released AMC fluorescence was monitored by a plate reader.



Equal amount of whole cell lysates prepared from DMSO (lane 1) or 20  $\mu$ M MG-132 (lane 2)-treated HEK293T cells were separated by SDS-PAGE and immunoblotted with an anti-Ub antibody. Cells were treated with DMSO or MG-132 for 4 hours.

**Description:** 

MG-132 is a reversible proteasome inhibitor that belongs to the family known as peptide aldehydes. MG-132 is cell permeable and can be used to treat various mammalian cells to block proteasome activities. MG-132 can be dissolved in DMSO for stock solution up to 100 mM. The typical concentrations for cell culture use are 1-10  $\mu$ M. For in vitro use, the typical concentrations are 50-100  $\mu$ M.





**Storage:** Eligible for room temperature shipping. Store at -20°C upon receiving; protect from air and

light.

**Note:** We recommend to prepare fresh MG132 stock solution in DMSO for both in vitro and cell

culture assays.

**Literature:** 1. Wilk S, et al. (1993) Enzyme Protein 47(4-6), 306-313.

2. Bush DT, et al. (1997) J Biol Chem 272(14), 9086 - 9092.

3. Myung J, et al. (2001 Med Res Rev 21(4), 245 – 273.

